

# American Artisan

and  
Hardware Record

Sheet Metal—Roofing—Warm Air Furnaces—Stoves

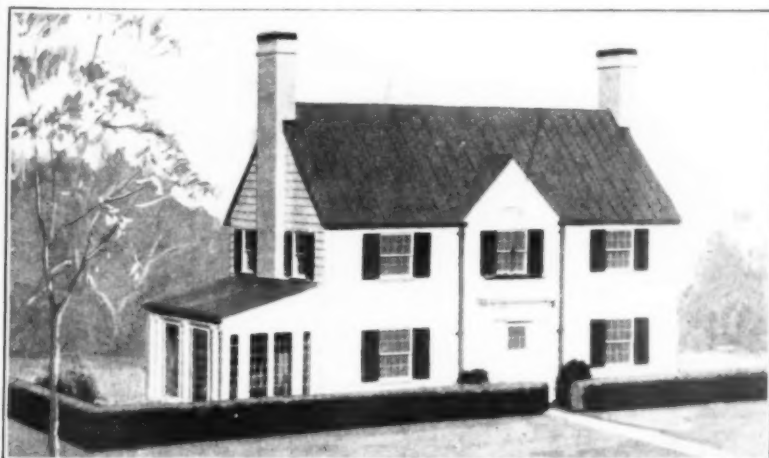
Vol. 93, No. 19

CHICAGO, MAY 7, 1927

\$2.00 Per Year

*A test more conclusive than an actual roofing installation  
—and no failure with*

## HORSE HEAD ZINC



Model house showing Horse Head Zinc Standing Seam Roofing, leaders, gutters, valleys and flashings.

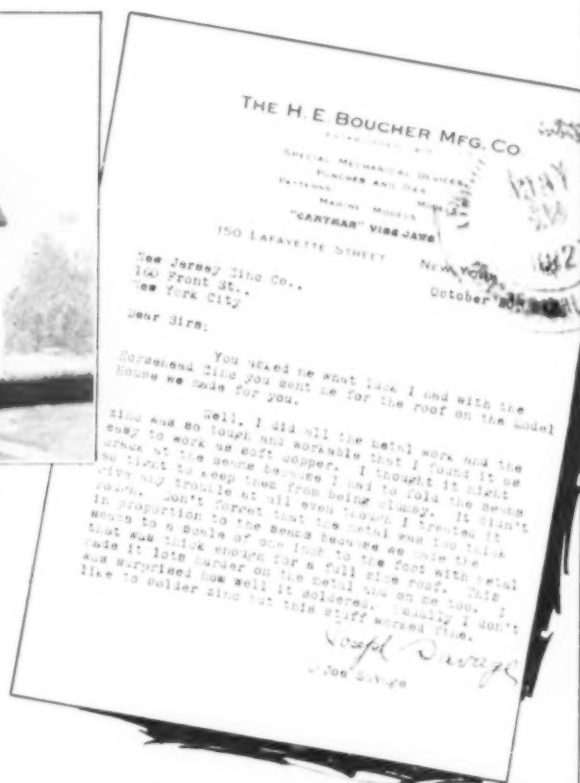
In laying the roof of this model house

### The Standing Seam Horse Head Zinc Roofing

was formed on the scale of 1 inch to the foot, and every step in making the standing seam was an exact duplication of the work done on an actual roof. The extra strain this Horse Head Zinc underwent without cracking is still another proof that *Horse Head Zinc* is not brittle. Read what Mr. Savage says about Horse Head Zinc—"Tough and workable as soft copper—No trouble at all—Easy to solder."



The New Jersey Zinc Company  
160 Front Street . New York City



THE NEW JERSEY ZINC COMPANY  
160 Front Street . New York City

Please send me a sample of Horse Head Zinc so that I can test its easy working qualities.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

5 A A

# Weir ?

## Just what can you do to increase furnace sales and what's more important build a better warm air heating business ?

THE few things that you *can* do very easily are simple and *inexpensive* and *not* to do them means slow death to your business.

They constitute such things as having a presentable place of business, clean windows and simple but attractive window displays, a few furnaces on your floor, and a few chairs for your customers.

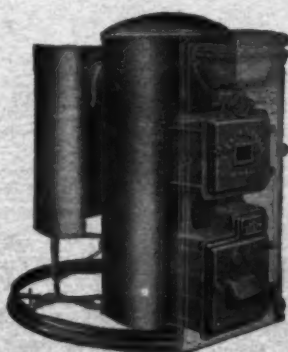
We sincerely believe that the majority of men doing warm air heating today are capable of doing twice as much business if they will only make their establishments more welcome to the men and women

who are in the market for better warm air heating.

It is not furnaces but *warm air heating* that is sold now-a-days and it is absolutely necessary for you to brighten up your place if you expect to get the best business.

This is house cleaning time—why not do the job now?

A partition is enough to make the front of your shop a very attractive show room and sales office. Your customers will not only feel more like buying but you will feel more like selling.



**The MEYER FURNACE CO.**  
Peoria, Illinois









# Doubles his business in a single year!

An unsolicited testimonial  
from a Robinson "Gem" dealer.

OFFICE 34 1716  
RES. L. 2118 W  
**E. L. ELLSWORTH**  
"GEM" FURNACES, SHEET METAL WORK  
FURNACE REPAIRING  
1224-26 WEST THIRD STREET  
DAYTON, OHIO, Dec. 10, 1926.

Robinson Furnace Co.,  
Chicago, Ill

Gentlemen

For the past few years it has been my custom to celebrate the Holiday season with a little party to the men of my organization and also a few friends of ours who have been especially responsible for the success of same in the preceding year.

The "Gem" Furnace and the help and courtesy shown by your company has been in a large way responsible for the success of my business this year. A real furnace, fair prices and prompt shipment is a combination that is indeed hard to beat.

It would, indeed, give us great pleasure to have you and also Mr. Taylor as our guests at this party which will be held Thursday, December 16th.

I sincerely hope that this past season is only a forerunner of many years of business relationship between us

Yours for a Happy Holiday Season,

E. L. ELLSWORTH.



"A real furnace—fair prices—prompt shipment, is a combination hard to beat."

That tells the story. For our part, it has been a real pleasure to cooperate with Mr. Ellsworth, who more than doubled his business in one year after taking on the Robinson "Gem" line.

The Robinson "Gem"—the quality furnace, yet still in the competitive field. Note its features—one-piece radiator, two-piece firepot, double feed doors, full cast front, lever shaker, clinker-proof grates, etc., etc. Every "Gem" guaranteed full size. It's a furnace that brings repeat business.

We can help you as we have helped Mr. Ellsworth make a real success in the furnace business. Write us today for full particulars.

**The Robinson Gem**  
Robinson Furnace Co.  
205 West Lake St., Chicago, Ill.

## BUILT FOR SERVICE

NO joints inside casing.  
One-piece circular grate.  
Patent dumping—no dust.  
Furnished with one or two outlets.  
No weight on furnace drum.  
4-point radiator support.  
Shipped with fronts completely assembled.

BUILT IN SEVEN SIZES TO MEET  
EVERY DEMAND FOR ECONOMICAL  
AND EFFICIENT HEATING.

### THE A. H. ROBINSON COMPANY

5103 Detroit Avenue - Cleveland, Ohio

16 Years' Experience Building Steel Furnaces



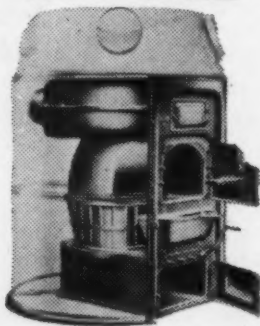
No. 544  
24" FIREPOT  
635" HEATING PIPE AREA

## Meeting the Needs of the Western Furnace Dealer

YEAR after year "Standard Line" dealers multiply in number and increase their percentage of the available business. This is mostly due to the completeness of "Standard Service."

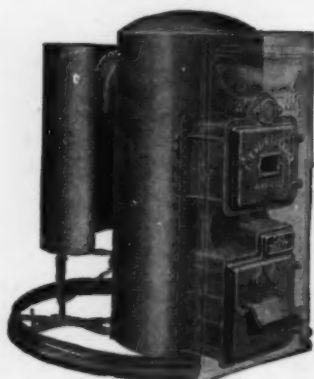
*For Instance:* From what other source can the Western Dealer obtain such complete selection of modern Warm Air Heaters as the Nesbit; Weir and Stanco Furnaces, 9 styles, and 47 sizes, in all.

Nesbit Moist Heat  
Furnace



Where else can you send an order for all of the following national brands and be assured of having your order filled complete?

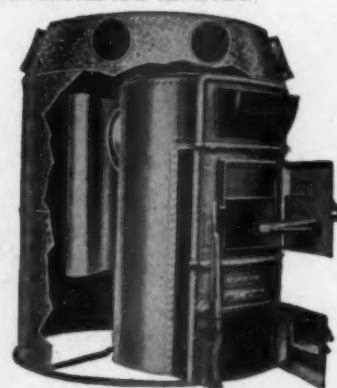
HANDY PIPE AND FITTINGS  
"NO STREAK" REGISTERS  
H & C—170-190 SERIES REGISTERS  
STANCO REGISTERS  
WISS SNIPS  
PEXTO TOOLS  
MAJESTIC CHUTES AND REGISTERS



WEIR STEEL FURNACE

Also the staple lines such as steel and semi steel Registers; Wood Grille; Whitney Tools; Asbestos Paper and Paste, etc., etc.

*In fact we have everything for the Furnace-man.*



STANCO STEEL FURNACE

**STANDARD FURNACE & SUPPLY CO.**  
OMAHA, NEBR.

# Lennox

*The more steel furnaces that appear on the market the more popular the Torrid Zone becomes!*

**I**TS leadership for over thirty years stands out more clearly—its qualities which make it the leader are more apparent.

For these reasons the conscientious warm air furnace dealer can sell it the the easiest to any man who wants a first class warm air heating plant.

The Lennox is *original*—it has features that *cannot* be duplicated by any other furnace.

It is not only distinctively designed but its construction is heavier and accurate in every detail. It is riveted gas tight.

It is produced by a company that is absolutely reliable and of soundest financial standing.

The many years of manufacturing and selling experience of The Lennox Furnace Company make it possible for the Torrid Zone to be the best *backed up* furnace on the market.

You as an agency holder share the large benefits of this efficient organization and your customers in turn are better served.

*It will be well worth your while to write us for complete agency details and particulars about our practical sales cooperation. The Torrid Zone is only sold thru authorized dealers.*



## Torrid Zone Furnace

*Made by  
The World's Largest  
Manufacturers  
of  
Steel Furnaces*

**The Lennox Furnace Company**

**Marshalltown, Iowa**

**Syracuse, New York**



## Forging Ahead With the SUPER-SMOKELESS



Cut-away View of  
SUPER-SMOKELESS FURNACE

DEALERS throughout the country are forging ahead with the SUPER-SMOKELESS because they are selling a furnace that is giving home owners better service and satisfaction.

The SUPER-SMOKELESS Furnace is a quality furnace not only made to sell, but made to *stay* sold. Its many superior advantages enable you to get better prices for your work. Frameless feed and ashpit doors, one-piece cast radiators and one-piece dome and combustion chamber are strong selling points of the modern up-to-date furnace. These features, together with the SUPER-SMOKELESS device, which is an integral part of this furnace, will enable home owners to meet any fuel situation. Because of the SUPER-SMOKELESS device, this furnace will burn any kind of fuel satisfactorily. The cheapest of soft coal can be burned without smoke or soot, the smoke and gases being burned completely before leaving the radiator. Actual tests have also shown that when hard coal is used more heat is generated from less fuel than other makes of furnaces of equal size.

We have a real proposition to offer you, and we invite you to look into it further. A post card mailed at once will bring complete information by return mail.

**UTICA HEATER COMPANY**  
UTICA, N. Y. CHICAGO, ILL.

## BOOMER

THIS is our latest addition to the Boomer line. We heartily recommend it for your favorable consideration.

The severe tests we have given this furnace have proven its durability. The unsolicited reports we received from users last winter have been most flattering.

For durability, economy, easy to operate, easy to set up and the low price at which we offer this furnace, you will make no mistake in arranging for the agency.

**THE HESS-SNYDER CO.**  
MASSILLON, OHIO

Makers of BOOMER FURNACES for Forty-Three  
Years



# How is This for a Record?

A furnace that can give service for twenty years and still command a resale price of \$50.00 (about 70% of its original cost) certainly deserves the consideration of every furnace dealer.

The improved 1927 models of "AFCO" Boiler Plate Furnaces will give even greater satisfaction, for they are built just as rugged as those of 1907, with a great number of refinements.

Here are just a few improvements—new one piece ash and feed pouches—new smoke consumer—enclosed grate bars—new locktite handles on doors—new patented radiator bracket and new base ring.

You are a judge of furnace values from experience. Do you know of any greater value than the "AFCO" in the warm air industry?

The "AFCO" dealer plan offers you unusual advantages for profit. We will be glad to send it to you without obligation. Tear out this ad now so you won't forget it.

**AMERICAN FURNACE CO. - ST. LOUIS, MO.**

**Other Furnaces Come and Go, but "AFCO" Stays and Grows**

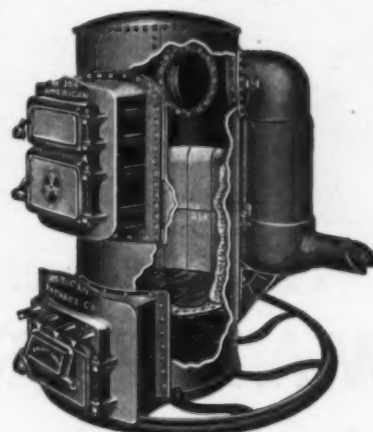
American Furnace Co.  
St. Louis, Mo.

Gentlemen:

I happened to come in contact with a No. 342 American Furnace that had been in use for about 20 years. I sold it for \$50.00.

How is this for a 20 year furnace? Some service.

C. H. GOODBAR  
Pueblo, Colo.

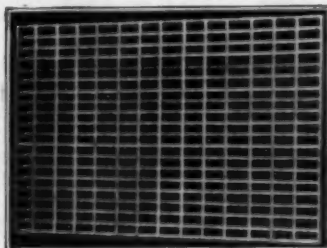


The Original "AFCO"

## Eaglesfield EXTRA HIGH GRADE WOOD FACES

MADE by special machinery. Finest white quartered oak and High Speed Ball Bearing mechanism insures perfect construction. Specially designed grooving saw cuts all grooves exact size. Eaglesfield Wood Faces are stronger than others—the cross pieces are 1/16 inch deeper than these used in other faces.

Single orders or carloads promptly at fair prices. Write today.



**EAGLESFIELD VENTILATOR CO.**

918 DORMAN STREET

INDIANAPOLIS, IND.

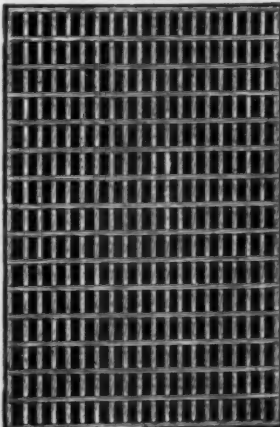
## AMERICAN WOOD REGISTERS

are

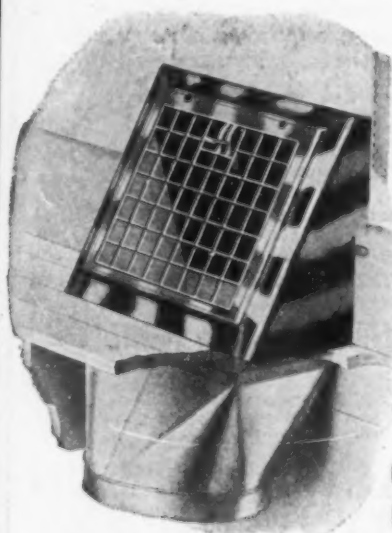
thoroughly inspected and before leaving the factory must come up to the

AMERICAN STANDARD, which assures you the highest quality.

**THE AMERICAN WOOD REGISTER CO.**  
PLYMOUTH, IND.



## Don't Waste Your Mechanics' Time



Cutting Sills, Joists and Studding

The Out-O-Wall Register saves all that by setting against the wall.

Only a hole in floor and base to set it.

Mail Now!

R. I. Register Co.  
Rock Island, Illinois

SEND us your prices and information on Out-O-Wall Registers.

Everyone needs the OUT-O-WALL REGISTER

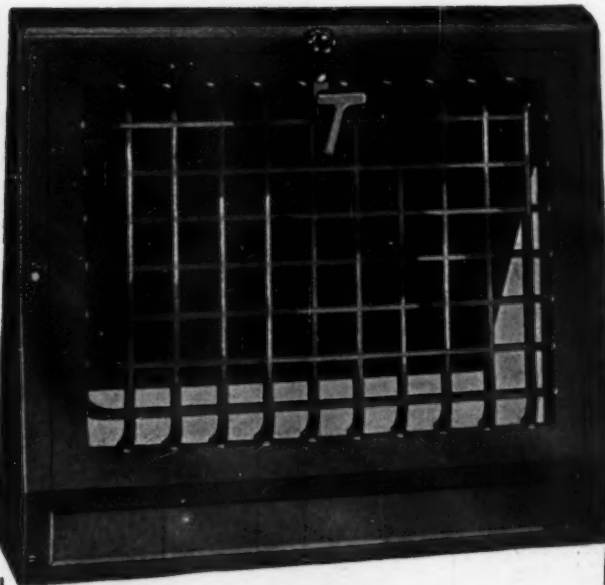
**Rock Island Register Co.**

Rock Island, Ill.

Name.....

Address.....

AA



*Have you seen it?*  
**WALWORTH**  
*New Standardized*  
 STYLE B  
*Baseboard Register*

NOT only made throughout in accordance with the rules of the Standardization Committee but it is the *neatest* durable register ever made to sell at a popular price.

Simple, easy and accurate in operation, cast face made of the best iron, finished in all the popular finishes and made in the following sizes:

8x10 inch	2 1/4	base extension
8x12 "	2 1/4	" "
9x12 "	2 1/4	" "
10x12 "	3 1/4	" "

*Study the features of this new register.*

Write today for full particulars and prices on the Walworth New Standardized Style B Baseboard Register.

Order some for that next job—your customers will want them.

*Made by the makers of Walworth Double Gratings, Semi-Steel Registers, Side Wall and Floor Registers, Ventilators, Borders and Casings Rings.*

**THE WALWORTH RUN  
 FOUNDRY COMPANY**

West 27th Street and N. Y. C. & St. L. R. R., Cleveland, Ohio

*Distributors:*

ROBINSON FURNACE CO., Chicago, Ill.  
 HART MFG. CO., Louisville, Ky.  
 PHILLIPS & BUTTORY MFG. CO., Nashville, Tenn.

*Eastern Representative:*

PENN TINSMITH'S SUPPLY CO., Philadelphia, Pa.

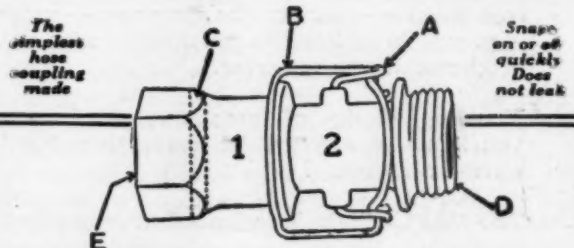
**"American Seal"  
 FURNACE CEMENT**

**Roof Cement — Stove Putty  
 Plumbers Putty**

PAINTS and SPECIALTIES

WILLIAM CONNORS PAINT MFG. CO.  
 TROY NEW YORK

*Established 1852*  
 JAMES L. PERKINS  
 Western Distributor  
 140 S. Dearborn St., Chicago, Ill.



**HESSLER Perfect Hose Connection**

YOU and your customers, everybody who uses a hose will welcome the Hessler Hose Connection. It saves hose length and the hose, no kinking or twisting—no splash, no leakage and you snap it on or off in a wink. The Hessler will be a big, fast seller and a real profit maker. Order a sample lot now—made in four sizes. Write today for price and circular.

H. E. HESSLER CO.

Syracuse, New York

**BOLTS**

WE MANUFACTURE A COMPLETE LINE OF BOLT PRODUCTS, INCLUDING STOVE BOLTS, CARRIAGE BOLTS, MACHINE BOLTS, LAG BOLTS, NUTS, COTTER PINS, ETC. ALSO STOVE RODS, SMALL RIVETS AND HINGE PINS, CATALOG ON REQUEST.

**THE KIRK-LATTY CO.**  
 1971 W. 85th St. Cleveland, O.

**PATTERNS FOR STOVES  
 AND HEATERS**  
 THE CLEVELAND CASTINGS PATTERN COMPANY  
 CLEVELAND, OHIO

**PATTERNS**  
 FOR STOVES AND HEATERS FIRST-CLASS  
 IN WOOD AND IRON  
 VEDDER PATTERN WORKS ESTABLISHED 1835 TROY, N. Y.

**IRON AND WOOD  
 STOVE PATTERNS**  
 QUINCY PATTERN COMPANY  
 QUINCY, ILLINOIS

READ THE WANTS AND SALES  
 PAGES





## Look Out of Your Own Back Door



**T**HERE is your store on the boulevard. The big plant behind you is YOURS, too. You built it and it's the biggest of its kind in the world today. It makes furnace pipe and fittings for you a lot better and cheaper than you used to make them in the little shop, and it keeps your stock ready at all times for the jobs you can handle.

A man that's sharp enough to see business ahead can see this plant behind him to take care of it. Think of your business as this picture shows it. The W. E. Lamneck Company, with its immense plant, equipped with specially designed machinery, its enormous warehouse facilities, its skilled designers

and artisans—is a part of your business, if you want it. It's run the way you want it to be, the way it will do you the most good—and it's just as close to you as your backyard—48-hour service on any standard made product.

Compare "Lamneck's" from any standpoint and you'll be justly proud to make the addition to your store. They are the best that skill, experience and flawless raw materials can make—true to promise, true to gauge—honest value. Get a "bird's-eye" of all these

factors and you have every reason in the world for adding yours to the other good names on our books.

### THE W. E. LAMNECK COMPANY

416-432 Dublin Ave., Columbus, Ohio

Western Representative: THE QUICK FURNACE & SUPPLY CO., Des Moines, Iowa

# LAMNECK

SIMPLIFIED  
PIPE AND  
FITTINGS

Note: If you do not have our catalog, use the coupon today. If you wish samples of any of our own manufactured products, just say the word.

THE W. E. LAMNECK COMPANY, Columbus, Ohio.

Gentlemen: Please send me as soon as possible, your latest catalog and discount sheet.

NAME .....

ADDRESS .....

CITY..... STATE.....

Say you saw it in AMERICAN ARTISAN—Thank you!

Published to serve  
the  
Warm Air Furnace,  
Sheet Metal, Roofing  
Stove and Hardware  
Industries

Founded 1880

# American Artisan and Hardware Record

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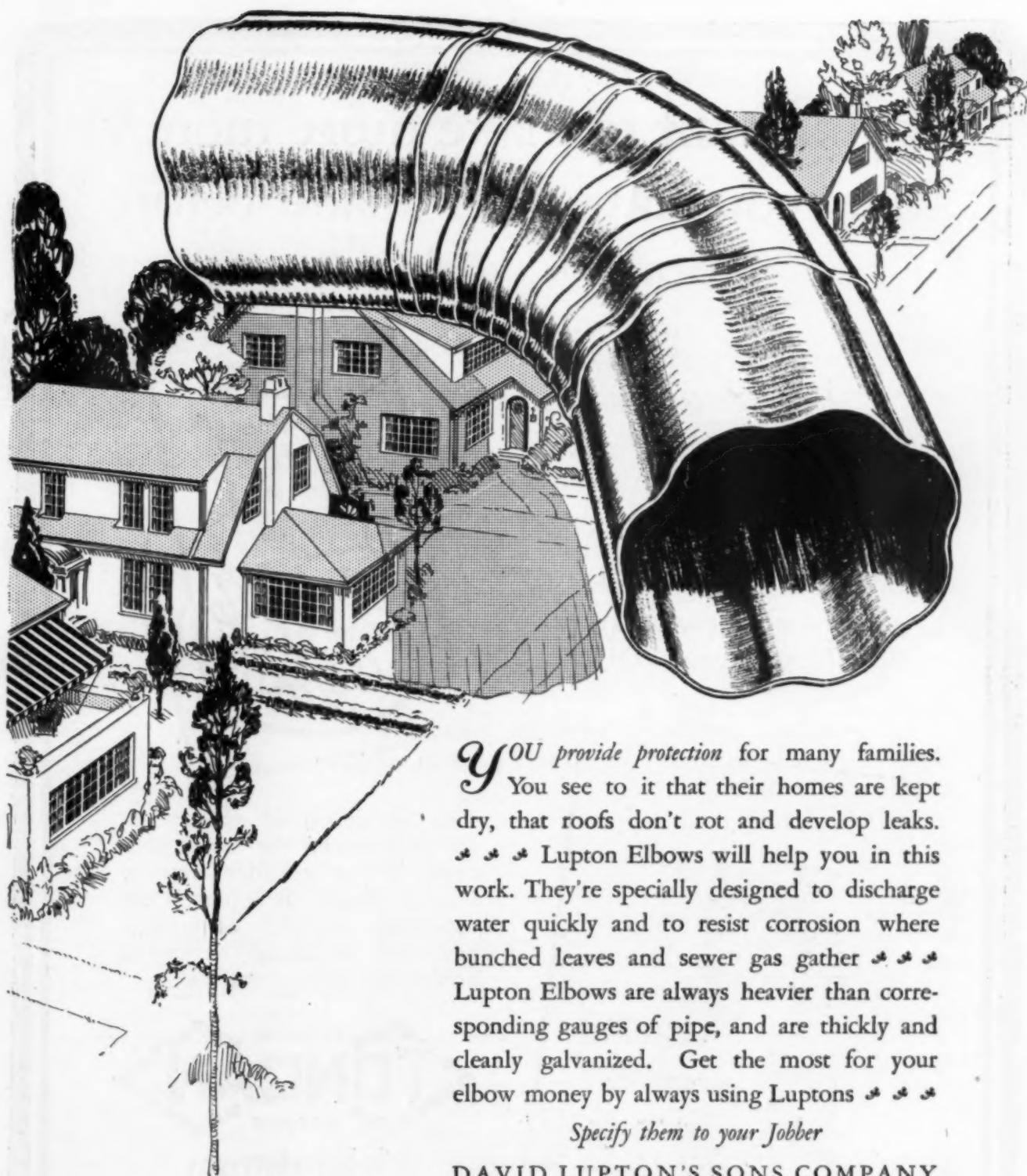
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### AN ACHIEVEMENT

*An explanatory note regarding service to readers of AMERICAN ARTISAN. This paper is now nearing the completion of a half century of service. For almost fifty years it has catered to the needs of the men in the industries which it represents. At no time during its long and successful career has AMERICAN ARTISAN been in a better position to render complete, adequate service to its readers than it is today. In addition to the matter contained in our regular weekly publication, we maintain Service Departments for the use of our readers. If you have a problem to solve, we courteously invite you to submit it to us for solution. In what better way can we learn of your problems than from you direct?*



*Y*OU provide protection for many families. You see to it that their homes are kept dry, that roofs don't rot and develop leaks. \* \* \* Lupton Elbows will help you in this work. They're specially designed to discharge water quickly and to resist corrosion where bunched leaves and sewer gas gather \* \* \* Lupton Elbows are always heavier than corresponding gauges of pipe, and are thickly and cleanly galvanized. Get the most for your elbow money by always using Luptons \* \* \*

*Specify them to your Jobber*

DAVID LUPTON'S SONS COMPANY  
Allegheny Avenue and Tulip Street Philadelphia, Pa.

# LUPTON

## ELBOWS THAT FIT

*Say you saw it in AMERICAN ARTISAN—Thank you!*



# If you want to make more money than you have ever made before *Send for this book!*

**T**HIS new book, "Speeding Up Sheet Metal Profits," tells you how to make more money in the sheet metal business. It is the composite result of methods used by hundreds of sheet metal contractors. Send for your copy TODAY.



This advertisement appears on the page facing the inside back cover of The Saturday Evening Post of May 7. It is part of our consistent national advertising program, which is increasing profits for Toncan dealers.



**CENTRAL ALLOY STEEL CORPORATION, MASSILLON, OHIO**

Cleveland  
Syracuse  
San Francisco

*Makers of Agathon Alloy Steels*  
Detroit  
Philadelphia

Chicago  
Los Angeles

New York  
Tulsa

St. Louis  
Seattle  
Cincinnati

**WORLD'S LARGEST AND MOST HIGHLY SPECIALIZED ALLOY STEEL PRODUCERS**



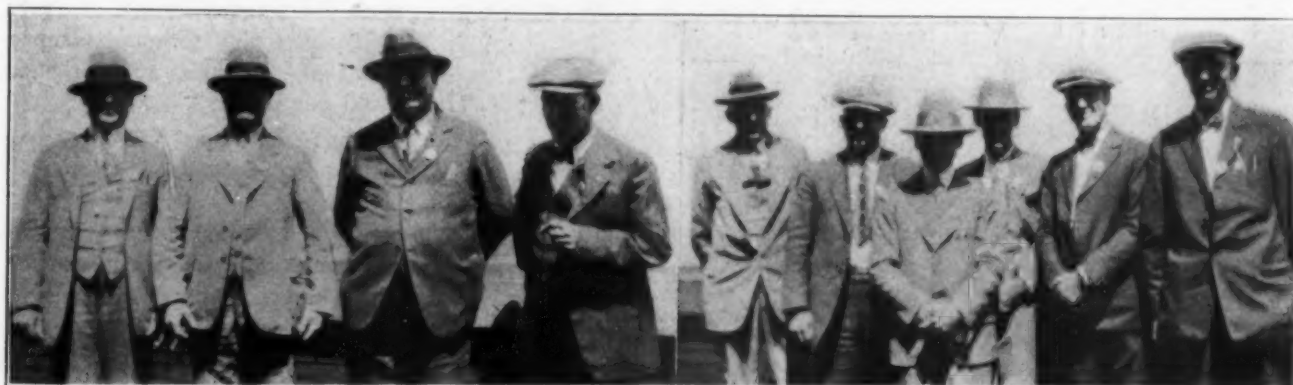
# American Artisan and Hardware Record



Vol. 93.

CHICAGO, MAY 7, 1927

No. 19.



George Erdheim, Phil. Zweig, Charles Gatz, John Wesbecker, Elmer Mullin, Homer Selch, Wm. Herman, T. V. Lavery, Jack Pope and Billy Wachtel.

## Harry Fenton Frowns on Licensing of Sheet Metal Contractors in Indiana

*Annual State Meeting at Severin Hotel, Indianapolis, Reveals New Problems for Contractors*

By GEORGE J. DUERR

**A** SALE is not a well made sale unless the factors of profit and service are given full consideration, was one of the many valuable things learned by the Indiana sheet metal contractors in convention at the Hotel Severin, Indianapolis, May 4, 5 and 6. The group of contractors who assembled at the hotel for the opening session was not as large as had been expected, but made up in enthusiasm and interest for what it lacked in numbers.

Because of the unavoidable absence of President Charles K. Strassner at the opening session, Vice President Elmer Livezey, of the Livezey Sheet Metal Works, New Castle, Indiana, called the meeting to order and presided throughout the day.

Joseph C. Gardner, Indianapolis, past president of both the Indiana State Association and of the National Association of Sheet Metal Contractors, reported on the trip to

Dallas, Tex., which he made to attend the national convention. He said he had joined the St. Louis "Special" at St. Louis, and related the hazardous trip that those on board experienced while passing through the flooded areas. He pictured a passenger train running on rails that were covered by more than a foot of water in many places, telling of the many times the train was rerouted to avoid bridges that were either unsafe or had been washed out altogether.

The convention itself, Mr. Gardner said, was a very successful affair from every angle.

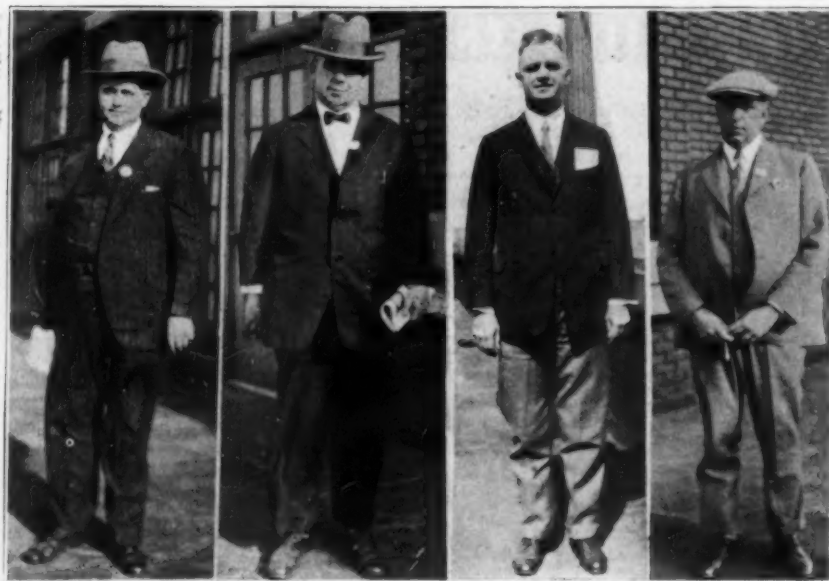
Mr. Gardner spoke of the book which the Trade Development Committee of the National Association has had under preparation for some time now. He made no definite statement as to when this book would be completed, but did say that in view of the vast amount of money that the association has al-

ready spent upon its preparation, a charge of \$10.00 per copy would be made for it. The book, when completed, will contain within its more than 500 pages, information on all phases of the sheet metal industry.

The next convention of the National Association, Mr. Gardner said, would be held in Ohio, and in all probability in Cleveland, although there is a possibility that Columbus may get it.

Harvey A. Call, manager of the recently established St. Louis branch of the Copper & Brass Research Association, who followed Mr. Gardner on the program, pointed to a 68 per cent increase in the consumption of copper during the last five years as a record of accomplishment for which the Copper & Brass Research Association has every right to be proud.

There are now, according to what Mr. Call told the Indiana men, 10,-



Bennett Chapple

Paul Jordan

Harry Fenton

V. L. Roland

000 sheet metal contractors and 5,000 architects in the country who are availing themselves of the services of the Copper & Brass Research Association. To show how extensive the advertising of the association is, Mr. Call said that in the East coast states 64 advertising mediums are being used, while the Copper & Brass message is reaching the middle west, west coast and Canada through 51 additional advertising mediums. "The public," he said, "appreciates the integrity of the association advertising, because it (the public) has been educated to the absolutely impartial position of the association."

Mr. Call complimented W. A. Willis, manager of the Copper & Brass Research Association, very highly for the work he had done to elevate the association to the high point of efficiency it now enjoys. He explained the books for architects on copper roofing and copper flashings, and described other useful literature on the uses of copper which the association has compiled. This material is available to all sheet metal contractors free.

In summing up the work of the Copper & Brass Research Association, Mr. Call said that the false ideas that the public has had of the use of copper, which have constituted a barrier retarding the free

use of the red metal, are gradually being broken down by the educational work the association is doing.

#### Fenton Finds Uniform Mechanic Lien Law Impractical

"The strength of the pack is the wolf; the strength of the wolf is the pack," very succinctly epitomizes Harry A. Fenton's ideas on the value of an association and its benefits. These ideas were expressed by Mr. Fenton, an Indianapolis attorney-at-law, at the afternoon session of the first day's meeting.

"This is the age of association," said Mr. Fenton, "but it is a hard task to convince the individual that he can gain the ends for which he is striving much easier in coöperation with other men than he can alone. But the close coöperation of every-

one is required," said he. "Do not depend upon the other fellow to help you, but go out and help the other fellow help himself."

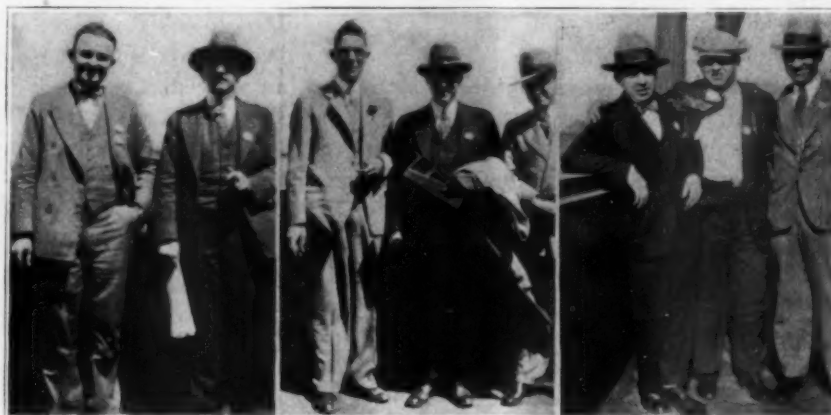
Mr. Fenton spoke of two bills which, had they been allowed to pass the Indiana state legislature, would have very seriously compromised the position of the sheet metal contractors.

The first of these bills was what was known as the abstractor's bill, a bill which would permit the placing of a mechanic's lien by an abstractor on real estate. It was Mr. Fenton's opinion that the abstractor should not be given the right of lien unless the real estate in passing through his hands has been left in an improved condition. This bill was not passed.

The second bill was one which called for the regulation, examination and licensing of building contractors and sub-contractors. This bill passed both houses of the state legislature, but was lost in Governor Jackson's "vest pocket veto" through Mr. Fenton's exertions.

Mr. Fenton does not look with favor upon the licensing of sheet metal contractors. It places the building industry too much in the power of politicians.

In regard to the national uniform mechanic's lien law recently proposed by Secretary of Commerce Hoover, Mr. Fenton was not in much sympathy with the idea. It was his opinion that a uniform lien law is impossible from the standpoint of practicability. He said



C. W. Barnes, C. E. Glessner, Harry A. Beaman, John E. Zulauf, Joe Mattingly, Lee W. Gillespie, Homer Selch and O. A. Nichols



that the Indiana laws meet every situation that might arise. Inasmuch as every state has conditions to meet that are peculiar to that state, he felt that, therefore, it is useless to attempt to standardize a thing of that kind.

#### Creating "Oh, Yes" State of Mind Toward Sheet Metal

Bennett Chapple, director of publicity of the American Rolling Mill Company, made a brief survey of the sheet metal industry and the mistakes that were made by both mills and sheet metal contractors.

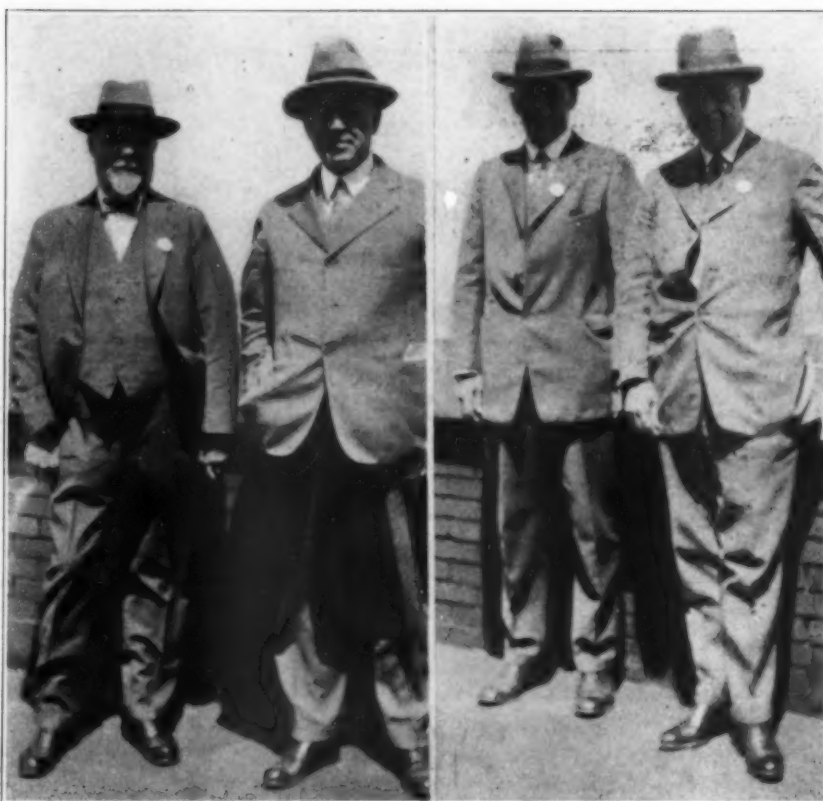
Mr. Chapple, in his usual inspiring manner, expressed the hope that the time is not far distant when the contractors will use nothing lighter than 28-gauge metal. "With such a policy strictly adhered to, the contractors can bring the business back," said he.

He touched on the change in merchandising that has occurred in the last thirty years. "Take the blacksmith," he said, "is he the garage owner of today? No, he is not. A new mechanic came in and took that business away from him. Will that be true of the sheet metal contractor, too?" he asked. With all the new uses for sheet metal that are being discovered by such bodies as the Sheet Steel Trade Extension Committee, will the sheet metal contractor get this added new business, or will a new mechanic arise and take this new work unto himself as the garage mechanic arose? That is for the contractor himself to decide.

Mr. Chapple spoke of the Armco booklets on cost accounting and blue print reading as a small part of the work the individual mills are doing to build the industry.

In addition to the work which the mills are doing collectively through the Sheet Steel Trade Extension Committee, Mr. Chapple said that Armco is spending \$360,000 annually in tie-up advertising, better quality being the theme of the message being given the public.

Joseph Mattingly, a past president of the Indiana association, addressed the assembly on association work. He said that the national



Joseph Gardner, Past President, National Sheet Metal Contractors Ass'n and Charles E. Hall, President of National Warm Air H. & V. Ass'n. Elmer Livezey and John C. Henley.

association and the state associations should gain members by giving the contractors something they want and need; that is, the contractors should take up the work collectively where the manufacturers leave off.

Mr. Mattingly left the contractors several questions to answer, which if answered properly would be the solution to the membership problem. Here are some of them:

1. "What benefit is the sheet metal contractors' association to a sheet metal contractor, and why should he be asked to support it?"
2. "What has the association to offer the small shop? What have we to sell him?"
3. "Will a merchant increase his business by using the best materials he can buy, even if he has to get a higher price?"
4. "Why does Indiana have a sheet metal contractors' association and a warm air heating and ventilating association?"
5. "What is tact?"
6. "Can aluminum be successfully soldered?"
7. "What can be done relative to

an association guarantee on workmanship?"

8. "How can you prevent contractors from taking work below cost?" (Asked by V. L. Roland of Elkhart.)

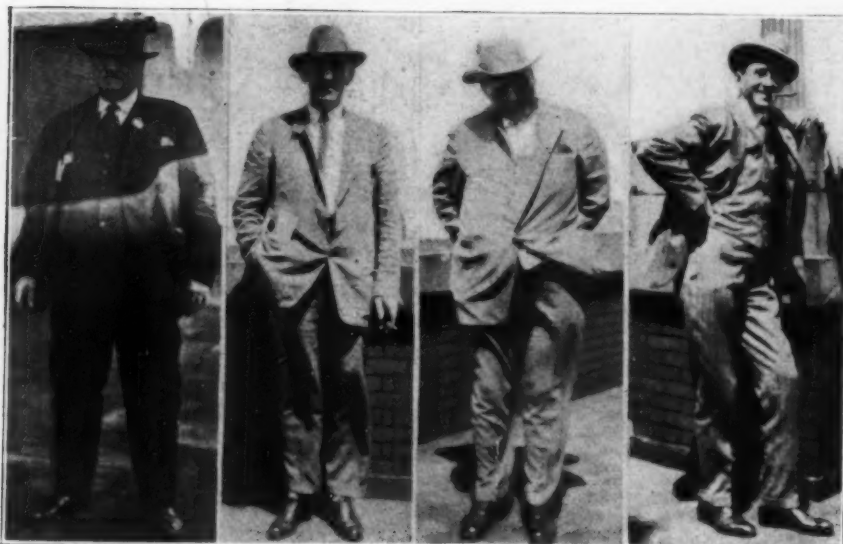
#### Indiana Furnace Men Hold Sway on Thursday

The Thursday meeting of the association was confined entirely to the activities of the Indiana Warm Air Heating & Ventilating Association. President Harry Beaman presided.

Professor V. S. Day of the University of Illinois was present and during the entire morning session, with the aid of lantern slides, gave the members present the benefit of the research work that has been carried on at the university on warm air furnaces.

The lantern slides which Professor Day employed showed the comparative results obtained from the four installations that have been tested at the university.

E. B. Langenberg, Past President of the National Warm Air Heating & Ventilating Association, and Charles E. Hall, the recently elected



O. Voorhees

H. S. Griffin

Harry Neal

George Thomas

president of that organization, were at the meeting. They both presented many ideas and knowledge about the furnace business to the dealers from the manufacturer's viewpoint, showing how the dealers can get the most out of the association work.

George J. Duerr, editor of *AMERICAN ARTISAN*, spoke on "How the Indiana Warm Air Heating & Ventilating Association Can Tie Up With the National Advertising Campaign."

E. C. Carter, Chicago, gave a talk on experiences he had had in sheet metal shops.

The banquet in the evening was a delightful affair, with much fun and amusement for all present. It was given by the Indiana Furnace Men.

The patrons of the convention were:

American Rolling Mill Co., Cincinnati, Ohio.

Follansbee Bros. Co., Indianapolis, Indiana.

Gedge Bros., Anderson, Indiana.

Globe Stove and Range Co., Kokomo, Indiana.

Hall-Neal Furnace Co., Indianapolis, Indiana.

Hart & Cooley Co., Chicago, Illinois.

Ferdinand Deickmann Co., Cincinnati, Ohio.

Paul R. Jordan Co., Indianapolis, Indiana.

Marshalltown Heater Co., Marshalltown, Iowa.

Milwaukee Corrugating Co., Milwaukee, Wisconsin.

J. M. & L. A. Osborn Co., Cleveland, Ohio.

Schaab Roofing and Supply Co., Fort Wayne, Indiana.

Standard Metal Co., Indianapolis, Indiana.

Premier Warm Air Heater Co.



J. P. Barton, H. A. Call, Frank E. Anderson, W. A. Strassner, Harry R. Jones

Dowagiac, Michigan.

Tanner & Co., Indianapolis, Indiana.

United States Register Co., Battle Creek, Michigan.

Whitney Metal Tool Co., Rockford, Illinois.

Williamson Heater Co., Cincinnati, Ohio.

Anonymous, Fort Wayne, Indiana.

Robert Kruse, Indianapolis, Indiana.

Century Heating Service Co., Indianapolis, Indiana.

Practically all of whom had exhibits at the convention.

#### Friday Morning

Friday morning a joint session of the Indiana Warm Air Heating and Ventilating Association and the Indiana Sheet Metal Association was held.

During this meeting consideration was given to a consolidation of the organizations. Discussion on the matter took up much of the time and full details will be published in *AMERICAN ARTISAN* next week.

The Indiana Sheet Metal Association accepted the Indianapolis Sheet Metal Association to membership at this session.

#### Furnace Men's Educational Convention to Have Unusually Fine Program

The Furnace Men's Educational Convention, to be held June 1 and 2 at Peoria under the auspices of The Western Warm Air Furnace and Supply Association, promises to have one of the liveliest and best planned programs ever drawn up for the warm air heating industry.

It is announced by the Publicity Committee that Dr. B. J. Palmer of Radio Station WOC, Davenport, Iowa, a popular after dinner speaker, has been secured as one of the speakers at the banquet to be given on the evening of June 1st. His subject will be "Selling Yourself."

Warm Air Heating Contractors are especially urged to attend this meeting.

#### Wm. P. "Bill" Laffin Appointed Sales Manager of Chas. Johnson Co., Inc., Peoria, Ill.

William P. Laffin, formerly in charge of sales for the Tuttle and Bailey Manufacturing Company Chicago office, on May 1st joined the organization of Chas. Johnson Co., Inc., of Peoria, Illinois as Sales Manager.

Mr. Laffin, a former president of the Illinois Travelers' Auxiliary, is widely known in the Chicago and middle western territory, where he did business with warm air heating contractors for the past ten years.

# Showing Application of Radial Line System of Triangulation

## Describes Full Size Layout of Heel, Throat and Flat Cheek Pattern

By J. H. TESCHMACHER

IT is customary in erecting pipe work to install all vertical and horizontal runs of piping long before the fans or blowers are set in permanent position. The run of piping would be started at an approximate position in its relation to the contemplated position of the fan.

After the fan has been set in its permanent place, correct measurements are made for the fitting which is to hook up the fan with the run of piping and a sketch made to as convenient scale which should not be so small that the data must be congested into narrow confines.

Such a sketch need not be elaborate, but should depict all the information possible. With the design in mind for a fitting as an alternate procedure to that shown by Mr. Kothe, it is not necessary to indicate a front elevation, and a typical sketch would be like my Figure 1, shown herewith, which I hope is self-explanatory.

The cutter or layout man in the shop takes this sketch and carefully studies it, so that he will have a true visualization of what he is to do.

The gage from which the fitting is to be made could be specified on sketch Figure 1, and also if seams are to be grooved, riveted or however made and if the corners are to be welded, flanged and riveted; double-seamed or are to have a Pittsburgh lock (hammer lock). Let it be assumed that the gage is 20, that the seams are to be grooved, that the corners are Pittsburghed, and that the trimmed and squared 36x96-inch sheets are at hand.

On the floor a number of sheets are lapped one inch, (or whatever the grooved seam used requires) securely nailed to obviate shifting and about as delineated in Figure

2. Figure 1 is then merely duplicated full size, which then (Fig. 2) provides the flat cheek pattern of the fitting. The curved part of the throat is divided to, say, eight equal spaces, as shown, which operation is duplicated for the heel.

It can be readily understood that work of this nature is not for mass production, where perhaps thousands of fittings would be made from these patterns and when the

In the stress of modern building practice, especially in the sheet metal line, where the men are often unmercifully driven to reduce the labor costs to permit adequate expectation of interest on money invested, it behooves designers to so design these fittings as to enable rapid cutting, assembling and erecting.

Naturally, this simplifying idea must be within reason, or else its

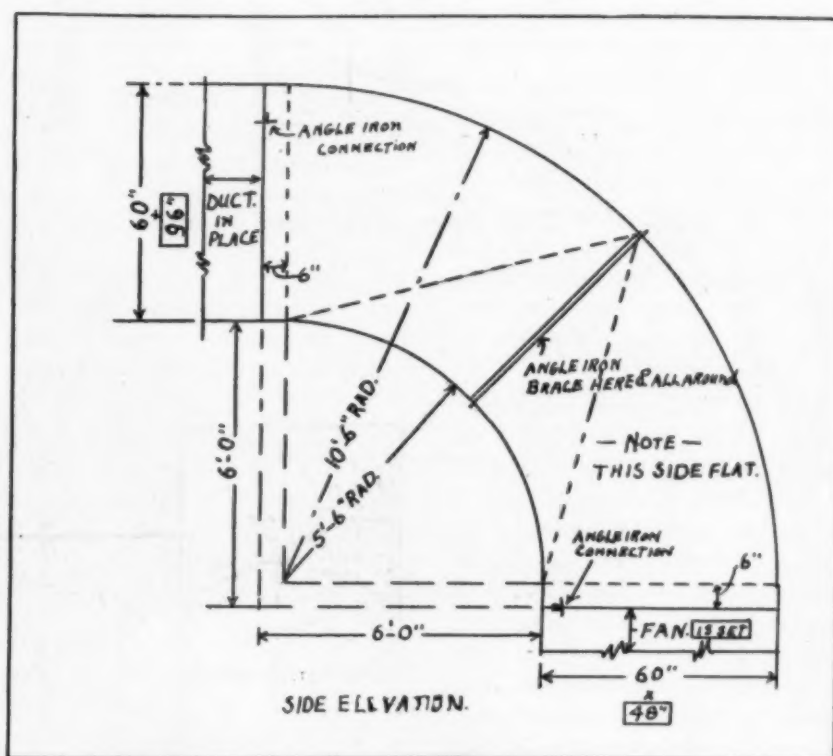


Figure 1. Scale Sketch Showing All Necessary Data

cost of same would be eliminated by the returns on the sales of the vast number made from these patterns.

On the contrary, there is no duplication of these fittings, and the pattern is used right up to make the fitting; therefore, again it can be readily comprehended that the labor cost of laying out the patterns is often a staggering charge for such work.

purpose might be defeated. It is confidentially felt that the design and procedure here exemplified will meet these requirements.

Note how a straight part is provided at each end of the fitting, which is an exact duplicate of the part to which it is to connect. Experience has demonstrated that a fitting can be erected with greater ease and consequently at less cost



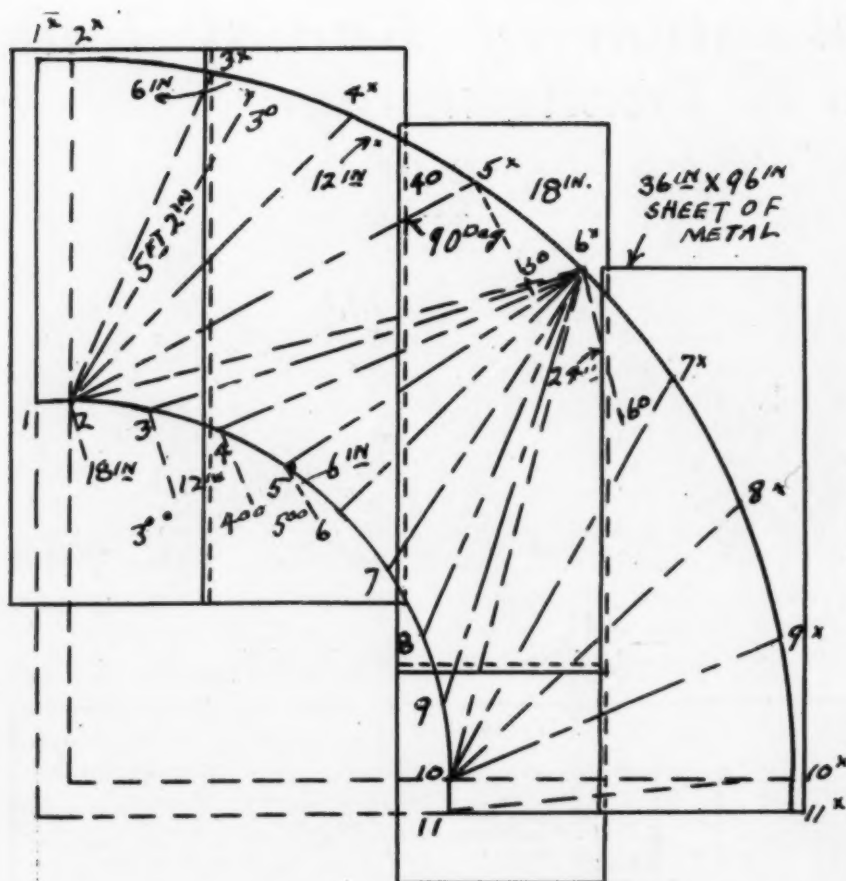


Figure 2. Full Size Layout of Flat Cheek Pattern

if designed this way rather than where they jump right into the change of shape, as in the case of Mr. Kothe's fitting.

Also by having the mitre line straight, as per Figures 3 and 4, no front elevation need be developed and the edges, particularly for the Pittsburgh, can be more easily formed therein. As a matter of fact, the hammer lock cannot be used on Mr. Kothe's fitting, because of the curved mitre line. The laying out of the heel and throat in Figures 3 and 4, it would seem, need no further explanation and for the pattern for the slanting cheek the procedure is to nail the sheets on the floor as heretofore.

Again commenting on design, the idea or thought is advanced that we are all entitled to our own opinions, which does not mean that we are always right and that the other fellow is always wrong—it simply means that there generally is more than one way as a means to an end.

Now we in this part of the coun-

try (New York) feel that the system of triangulation which Mr. Kothe propounds produces a cheek which is similar to the spiral chute

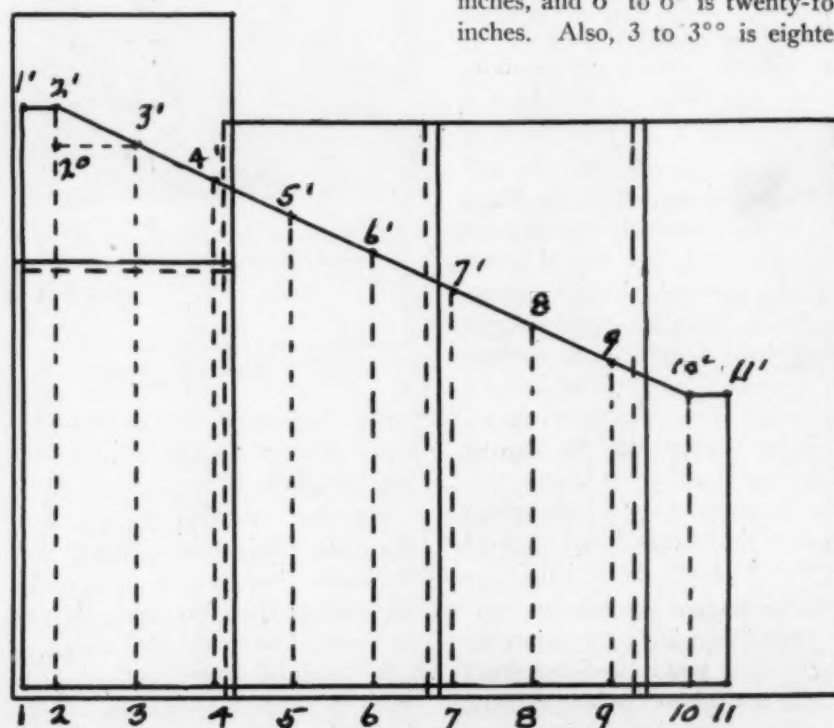


Figure 3. Full Size Layout of Throat Pattern

problems. Such patterns are only approximate and the metal must be stretched and crimped.

By the radial line system of triangulation herewith advocated, this trouble is practically eliminated. There is a choice of a number of ways to employ these radial lines that are here shown, while perhaps not altogether ideal, is sufficiently practical and lends itself to a non-complicated process of development.

As in Figure 5, sheets of metal are once again fastened to the floor and 1' 2' and 1 2 are a duplicate of the same part in Figure 2. Now, it is necessary to determine the true lengths of the radial cones in Figure 2 before the rest of the pattern can be laid out. The difference in the lengths of the lines 10' 10 and 2' 2 of Figure 3 is forty-eight inches and, therefore, the difference in the lengths of lines 2' 2 and 3' 3 is one-eighth of this or six inches.

At right angles to line 2 3' of Figure 2 a line is drawn which is six inches long, locating thereby point 3° and, therefore, line 2, 3° is the true length of line 2, 3', or five feet and two inches.

In Figure 2 the length 4' to 4° is twelve inches; 5' to 5° is eighteen inches, and 6' to 6° is twenty-four inches. Also, 3 to 3° is eighteen

inches, and so on. Line 6-6' shows in its true length in Figure 2, and those radial lines on the other side of it are the same lengths as those just mentioned.

Returning to Figure 5, we drive

in a similar manner, thereby completing the pattern for the slanting cheek.

Bear in mind that it is imperative for the cutter to label carefully the inside of his patterns and on that

cates the outside of the pattern; Figure 3 the inside; Figure 4 the outside, and Figure 5 the inside. It is customary to make slight bends along the lines indicated by the crosses in Figure 5.

#### Wants Method of Preventing Smoke Pipe Rusting During Summer Months

Here's an inquiry from "Subscriber," who says:

"Last year I was called on to inspect a smoke pipe job and I found that moisture had seeped out through rust pits in the pipe and the under side was dripping wet all along the pipe and ten feet from the chimney. This year I am replacing the pipe with a new one and I should like to know what I can do with this chimney in order to prevent this condition occurring after the new pipe has been installed.

"I am familiar with the practice of occasional fires during the summer to dry out the pipes and also of the practice of taking the pipes down for the summer. The solution, however, must be something else."

a nail into point 2 to act as a center pivot. Onto this is hooked the ring of a steel tape measure. Then holding the pencil in the 5-foot 2-inch indicator on the tape, we describe a short arc line near point 2'. Other radii are described corresponding in length to the like number lines in Figure 2. With the dividers set to span the space 2' 3' of figure 4 and with point 2' Figure 5 as a starting point, we step off the space from one previously inscribed arc to the adjoining one, thus locating points 3' to 6'.

A nail is driven into point 6' for the ring of the tape measure and an arc of indefinite length described from point 2. With a radius equal to the true length of line 3-6' of Figure 2, and arc described in Figure 5, as shown. For points 4, 5, etc., arcs are likewise described, and with the dividers set to span from 2' to 3' of Figure 3, points 3 to 10 are stepped off, as shown in Figure 5.

With a radius equal to 10' to 11 of Figure 2, an arc is described near point 10 of Figure 5, which is intersected by one swing from point 10 and equal in length to 10 to 11 of Figure 2, thereby obtaining point 11' of Figure 5. Point 11' is obtained

side to place the necessary information, for the guidance of the brake hand, to form the edges and the like and for the speedy assembling of the parts. The cutter also provides the necessary edges (not shown here) for the corner seaming or Pittsburgh lock. Observe that as here shown, Figure 2 indi-

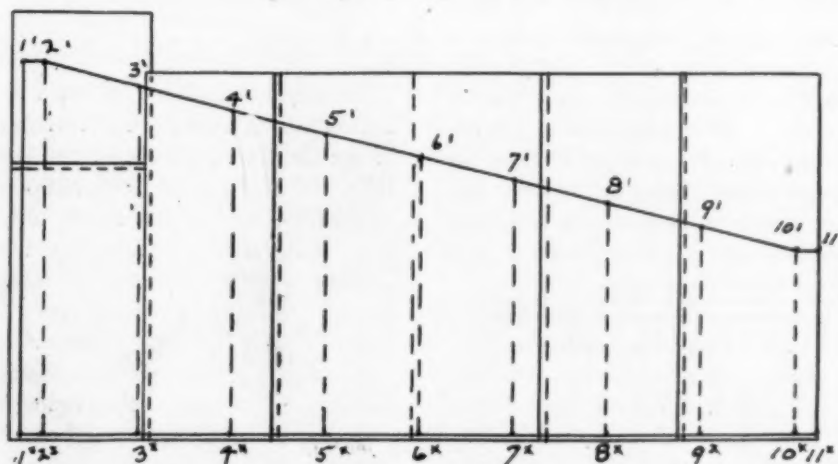


Figure 4. Full Size Layout of Heel Pattern

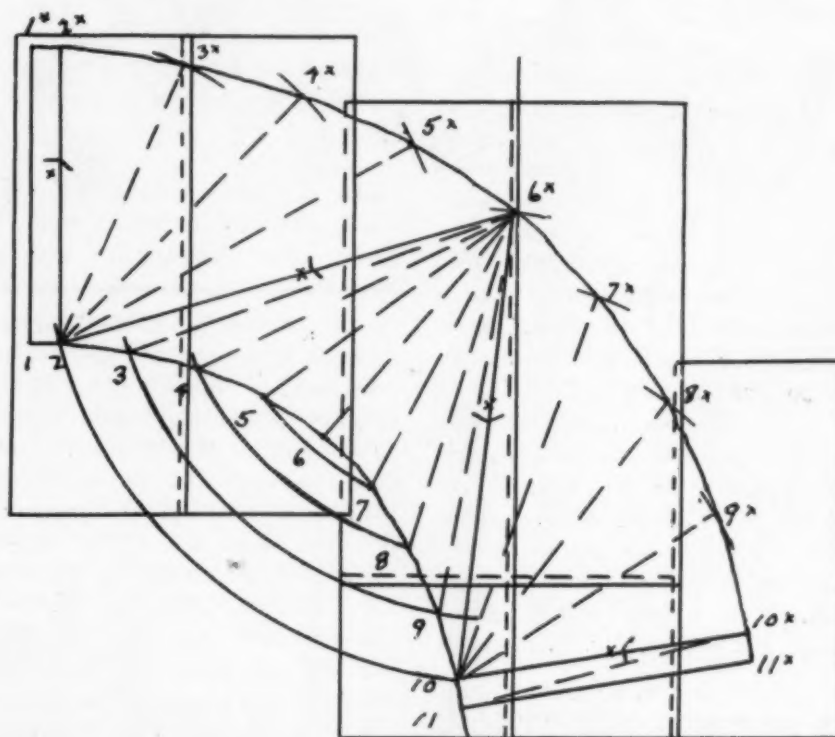


Figure 5. Full Size Layout of Slanting Cheek Pattern

# Helping Ten Thousand Sheet Metal Contractors to Better Business\*

## Association Receives Thousands of Actual Sales Leads Which Are Distributed Free to Contractors

By JOHN F. GOWEN, Architectural Engineer, Copper & Brass Research

**"H**ELPING Ten Thousand Sheet Metal Contractors," the subject of my talk this afternoon will give you gentlemen of this profession a brief insight of what the Copper & Brass Research Association is doing to help you increase your business. When there are more than thirty thousand sheet metal contractors in the United States you have probably pondered over the subject, wondering why we are helping but one-third of the total number.

Since the inception of the association which was formed a little more than four years ago we have established a direct contact with and are helping ten thousand contractors. We are ready and want to help the entire quota. But before going into more details on this subject I want to give you a brief resumé of our association and its functions.

During the period of the war most of the copper mined in the United States was withdrawn from the field of commerce to be used in the manufacture of munitions. During the war period many substitutes for copper in commerce sprang into existence. After the armistice was signed there was a billion pounds of this metal above ground for which there was little or no immediate market.

A survey of the markets and potential markets was undertaken for the industry by Mr. William A. Willis, now manager of the association. Among his many recommendations for the producers and fabricators of copper and its alloys, brass and bronze, Mr. Willis sug-

gested the formation of this association. This was done about five years ago, and since that time approximately 90 per cent of the copper producing companies and brass fabricators of this country have joined the association.

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*Sheet metal sales in this day and age depend almost entirely on the contractor's superior ability as a salesman. He must present facts backed by figures that will convince the home owner that sheet metal is the best material to use. What are these facts and figures that he must use? The fundamentals are contained in this article by John F. Gowen, Architectural Engineer of the Copper and Brass Research Association. The illustration accompanying the article is not a part of it. This is a copy of an advertisement which the Copper and Brass Research Association has been using in the Chicago daily papers during this season. It indicates what that association is doing to create new markets for its products.—The Editor.*

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The principal function of the association is to increase the use and knowledge of copper and its alloys through advertising and research work. In this connection we maintain a research department which investigates new and existing uses of copper, brass and bronze, and a building service department which coöperates with builders and contractors and assists prospective builders and buyers of homes in solving the vexing problems which confront them. These various functions and departments dovetail with each other.

During the existence of the association we have and are advertising in the daily newspapers of the key cities of the country, in national magazines, and in trade and technical publications. There are two characters of advertising being used. The copy in the daily newspapers and national magazines point out to prospective buyers and builders of homes the advantages of using copper, brass and bronze. Through the illustrations and text matter the public is shown the economy of copper for roofing materials; brass for plumbing, bronze or copper insect screen cloth and brass or bronze hardware and lighting fixtures. While these materials are slightly higher when first cost only is taken into consideration, the public is taught that they never need replacements, which are costly, as do corrodible metals.

In the trade and technical publications we offer our facilities and assistance to sheet metal contractors, plumbing contractors, manufacturers and other allied fields which are consumers of our metals. In this connection I might say that we have two technical books showing the proper method of applying copper roofing materials. One is entitled "Copper a Roofing Manual for Architects and Sheet Metal Contractors," and the other, "Copper Flashings."

We have given copies of these books to more than five thousand architects and to more than ten thousand sheet metal contractors. Another technical book we have issued is entitled "Practical Brass Pipe Plumbing." It shows the proper method of installing brass pipe. Between twenty-five and thirty thousand copies of this book have been furnished to plumbing contractors throughout the country.

\*Address by John F. Gowen, Architectural Engineer of the Copper & Brass Research Association, delivered at the annual convention of the National Association of Sheet Metal Contractors, Dallas, Texas, April 26-28.



We have offered to furnish these books without cost or obligation upon either your part or upon the part of plumbers, to every sheet metal contractor and to plumbing contractors through advertising in all the trade publications read by these respective trades.

More than ten thousand sheet metal contractors have written for copies of these books and are now using them in their profession. We want to help the other twenty thousand who have not established a contact with us. It is to these men that I am now speaking. I should like to have them all write us, for we want to establish a contact with them. We can help them in many ways and there is no cost or obligation upon their part in any way. We are a voluntary unincorporated body and have nothing to sell.

I want to give you now a brief resumé of how our building service department, a department of which, by the way, I am in charge, operates. This department receives thousands of actual sales leads annually from every section of the United States. *Any sheet metal contractor in this country can have the sales leads pertaining to copper roofing materials from his city and territory without cost.* I might mention that sheet metal contractors who are not obtaining them are losing a great amount of valuable business.

All inquiries for copper roofing materials are sent out each night to your national headquarters at 336 Fourth Avenue, Pittsburgh, Pennsylvania. Any sheet metal contractor in the country can obtain the leads from his city or territory by writing to your headquarters. If you are not getting them, write immediately. You will find many of these leads will bring you business.

These sales leads emanate from numerous sources which I will explain. First, when we receive requests for our non-technical books from readers of our advertisements in newspapers and magazines, we follow up these requests ten days later with a letter to the prospects asking them if there is any addi-

tional information we can furnish or if they want to buy materials made from copper, brass or bronze. Hundreds of replies are received each week. These are actual sales leads and are sent to our member companies for distribution to their clientele. The sales leads to our member companies are sent out each evening by this department.

In addition to the leads received from our advertising we are subscribers to the F. W. Dodge Building Service Reports; the Home Owners' Institute, and have our own Pacific Coast and Middle West

ciation the consumption of copper and its alloys has shown an increase of more than 110 per cent. Of course, we do not credit ourselves with causing all this increase. A great amount of it came in the course of natural developments.

There has been formed in Germany within the last few weeks the German Copper Institute whose functions are patterned very much after that of our own organization. Similar organizations are now in the stage of formation in Belgium and France. Our technical books on roofing have been adopted by

## SEND for this NEW BOOK on HOME BUILDING



Before you buy or build a house, read our 48-page illustrated book, "A Real Home."

Replacements of corrodible materials are costly. This book will save you money.

Whether you plan to have a bungalow or a mansion, you'll find "A Real Home" helpful. It is sent without cost or obligation.

**COPPER & BRASS**  
RESEARCH ASSOCIATION  
25 Broadway, New York

offices who also send in thousands of sales leads annually. Last year this department sent out a quarter of a million letters to the prospective buyers and builders of homes whose names were received from the various services I have mentioned.

You gentlemen are, of course, most interested in the activities of our association having most to do with sheet metal contractors. You are probably pondering in your mind what effect our activities have had in increasing the consumption of copper, brass and bronze in the United States.

Since the formation of the asso-

these associations and are now being translated and printed for distribution to the architects and sheet metal contractors of those countries.

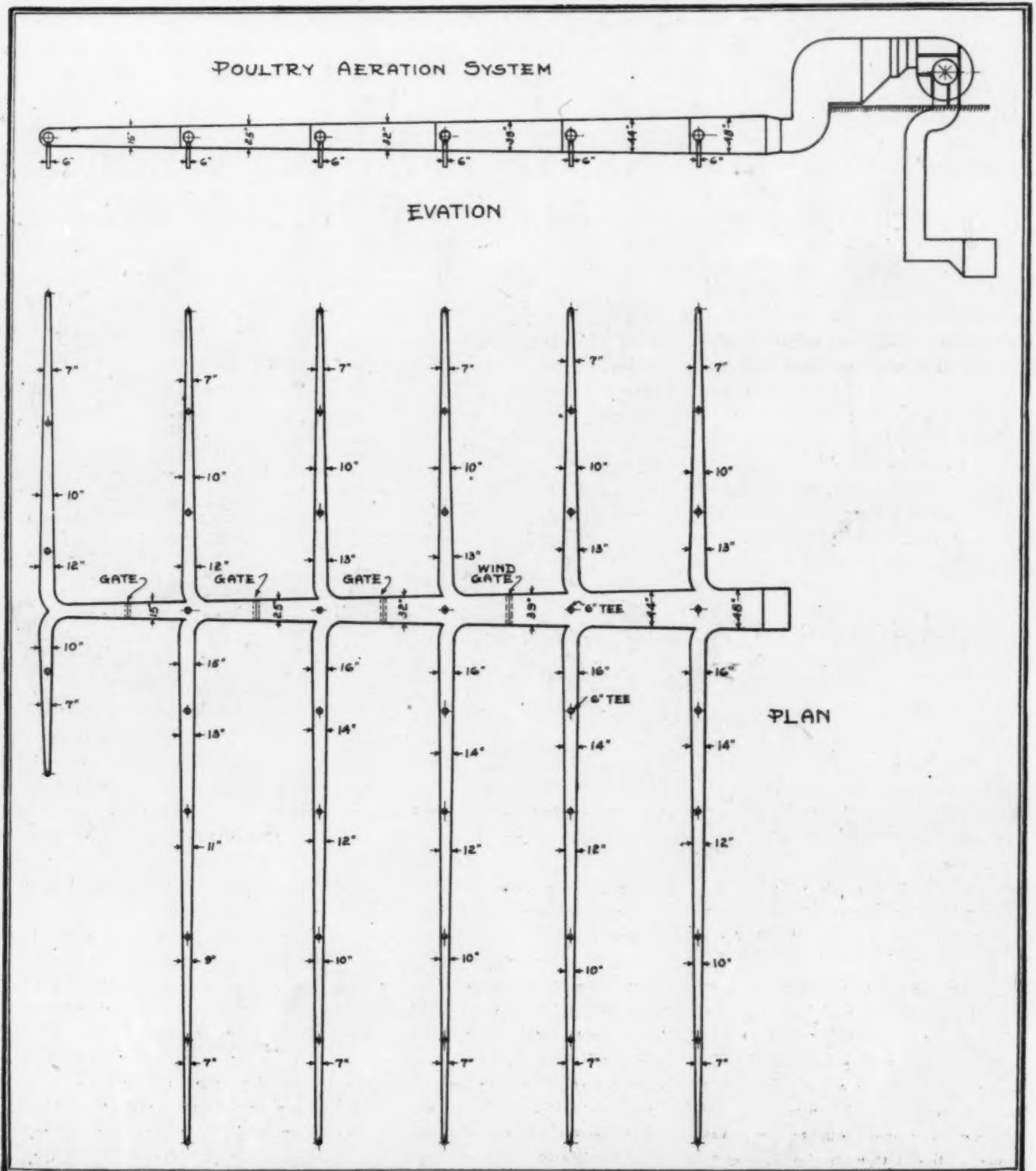
Any problems of a technical nature that any of you gentlemen of this organization have on the application of roofing materials we should like to have you submit to us. We will assist you in any way possible without compensation or obligation on your part. We want to know you better and nothing would please us more than to have you establish a contact with us by personal calls at our office, 25 Broadway, New York City, or through correspondence.

# Modern Poultry Houses Require Proper Aeration and Heating System

*Here Again Sheet Metal Contractor Is Given Opportunity to Use Latent Ingenuity*

By O. W. KOTHE, Principal St. Louis Technical Institute, St. Louis, Mo.

IT IS said that the average hen but by feeding them with a golden spoon and giving them the proper surroundings, they will lay upward of 300 eggs per year. That shows



Poultry Aeration System

the difference between taking the proper care and providing scientific principles than the old fashioned methods of letting things go as they grow.

In this drawing I show an example of poultry ventilation sent in by one of my students, Mr. Raymond Zeiner, Quincy, Ill., which shows a very unusual piece of work, where additional sheet metal work can be applied. Studying the system, we see that a fan is used and an air duct leading to the shaft no doubt from some place where the air is fresh and not contaminated. Then from the fan an overhead system is installed, using tapering branch lines from a main having 6-inch drop pipes tapped in on the bottom of pipe lines for giving the poultry a proper air circulation.

Chickens are outdoor fowl and when they are housed without proper ventilation, it is natural for them to become sickly or when in congested surroundings they will not be in as healthful a condition and lay the eggs expected.

By installing a fresh air system, therefore, the nearest approach to outdoor conditions can be produced within the hen house. In hot weather it is possible to equip a small air washer and so to cool the air being

blown through the system. In severe cold weather it is also possible to install a small heating coil and so temper the air and give the poultry a more uniform heat, such as they can stand and not subject them to the extremes they are usually expected to resist.

In looking over our plans we see each outlet naturally is directed into a stall of its own, as modern poultry houses are generally provided with numerous sectional stalls and each one only housing a certain number of fowls.

In the plan we also see wind gates placed between sections so as to cut any section off that may not be in use and it is also possible to place dampers near the ends of the outlets for adjusting the flow of air and also cutting off when certain stalls are not in use.

All and all I think this plan a splendid design and shows the results of training and imagination added to good working ability. We are showing these drawings that some of our students submit from time to time as an expression of good will for the work the students do and also to show others by means of inspiration what can be accomplished if you will but get down to do it.

aim to serve you in the best possible manner.

"The Klauer Manufacturing Company have been engaged in the manufacture of sheet metal and other products since 1870, and in adding the products enumerated above to our present lines of roofings, metal ceilings, spouting materials, valleys, ventilators, skylights, etc., we are offering you the additional advantage of consolidating your purchases by including the items made by the Lichty Company.

"Machinery, stock, etc., have been moved to our Dubuque, Iowa, factories and as stated above we are in position to immediately serve you. If you do not have one of our late price lists, which have just been issued by us, or a catalogue and price list of the Lichty Metal Products Company items, please advise us promptly."

#### **Teela Sheet Metal Works, Oshkosh, Has Innovation in Check Draft**

A new check draft has been placed upon the market by the Teela Sheet Metal Works, Oshkosh, Wisconsin, which is an innovation in the check damper field.

In order to install this device, it is but necessary to cut a hole in the pipe and clamp on the damper.



There are no bolts necessary, as the damper is held in place by means of a clamp.

The damper is made to fit the sizes of pipe that are customarily employed in furnace and stove work. Prices and complete information can be had by writing the Teela Sheet Metal Works, Oshkosh, Wisconsin.

## **Klauer Mfg. Co. Takes Over Lichty Metal Products Co.**

**Will Continue Manufacture of Lichty Products at Dubuque**

**T**HE Klauer Manufacturing Company, Dubuque, Iowa, has taken over the Lichty Metal Products Company, Waterloo, Iowa, including all patents, good will, contracts, etc., and will continue the manufacture of products they have been making as follows:

Monitor and Waterloo Revolving Cupolas; Monitor Ventilators; Monitor Roof Windows, including all styles; Monitor Stationary Cupolas; Monitor Skylights; Monitor Intake and Exhaust flues; Monitor Ventilating fans; in fact all products catalogued and manufactured

by the Lichty Metal Products Company.

The manufacturer says: "We are prepared to make prompt shipments and can ship most items from stock on hand.

"You are undoubtedly familiar with the very excellent quality and workmanship incorporated in the products made by the Lichty Metal Products Company. We trust that your business transactions were satisfactory, and we assure you that we will very much appreciate a continuance of your patronage with the



# Sheet Metal Dan Tells Contractors About Association Benefits

*Urges Them to Become State Association Members and Get National Membership Thereby*

**S**HEET METAL DAN, of the Distributors' and Salesmen's Auxiliary and Sheet Metal Contractors' Association of Pennsylvania, in his tenth of the series of talks to sheet metal contractors, tells why he is an association man. Here's what he says:

I wonder how many of you fellows know what the National Association of Sheet Metal Contractors is doing for the sheet metal business. You've probably guessed that I'm an association man, and maybe you'd like to know why.

Well, for one thing, the Association is made up of contractors just like you and me. It has no axe to grind but your's and no purpose but to help the sheet metal business. And, as I see it, the more contractors that come into it the quicker things are bound to improve for all of us.

More sheet metal is being used every day on account of the association's work. Architects and building contractors are demanding sheet metal work more and more. This is partly because the association last year placed in the hands of 5,000 architects and contractors a handbook on cornices containing carefully worked out suggestions for specifications and illustrations of the best methods of construction. What's more, the association is getting out another handbook to go to the building trade that will cover not only cornices, but every branch of sheet metal work in building construction.

I get 40 to 50 per cent off my fire insurance premiums just because I belong to the association. That's because I don't have to pay any membership fee to the mutual insurance company which places fire insurance for association members.

You fellows know how much warm air furnace business there is.

Well, the association stands for the best possible installations on these jobs, work that will stand up for years and always be a credit to the contractor. More standard methods, heavier gauge materials and quality above price is what the association works for all the time. Mind you, this work is just for the sheet metal business, just for us contractors and for nobody else.

Later on we're going to have better trained men in our shops, young



## Sheet Metal Dan Tells Why He's An Association Man

fellows who know more about the sheet metal business at the start than we did when we were young fellows and won't have so much to pick up by experience. They will have had courses in sheet metal under the apprenticeship training plan which the association has gotten adopted by schools all over the country.

You can get all these advantages and a lot more from membership in the National Association of Sheet Metal Contractors. I'm telling you because I've gotten them and I know. Join your state association and that makes you a member of the national

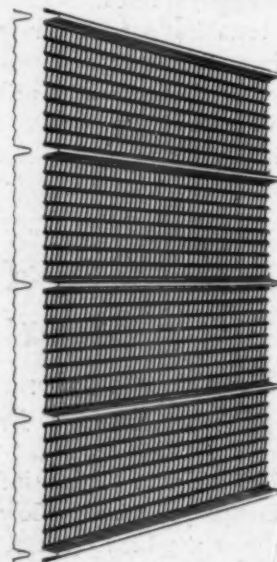
association. Secretary W. F. Angermeyer, 7253 Frankstown Avenue, Pittsburgh, will be glad to receive your application for membership.

### Milcor Has Developed New 3/4-Inch Stay-Rib Metal Lath

The Milwaukee Corrugating Company, Milwaukee, Wisconsin, have recently developed what is known as the 3/4-inch Stay-Rib Metal Lath No. 3.

This new metal lath, the manufacturers say, is as particularly adapted for work in the field of metal lathing as the Stay-Rib Metal Lath No. 3.

This new metal lath, the manufacturers say, is as particularly



adapted for work in the field of metal lathing as the Stay-Rib Metal Lath Nos. 1 and 2 are in their fields.

The manufacturers also say that production machinery for this lath has been perfected ready for immediate operation. This also includes equipment capable of curving 3/4-inch Stay-Rib No. 3 to a complete circle or a partial arc at either or both ends. Full information can be had by writing the Milwaukee Corrugating Company.

## Random Notes and Sketches

By Sidney Arnold

"The essence of humor is sensibility; warm, tender fellow-feeling with all forms of existence."—Carlyle.

Sidney's down in Indiana this week. He forgot the Random Sketches and I have volunteered to fill up the page, so here I am.

I had such a wonderfully good time in Dallas last week that I just can't resist telling you a little about the social side of the convention.

You may have heard that our train was thirty-six hours in transit from St. Louis to Dallas—just thirteen and a half hours late.

I'll try not to tell tales, but Art Lamneck was the only one of the gang who admitted that he used the time to good advantage, learning



- (Group A) (1) The Ladies' Auxiliary Officers—Mrs. Jules Gerock, Jr., St. Louis, Vice-President; Miss Virginia Hutchison, Louisville, Secretary; Mrs. Bowers, San Antonio, Treasurer; Miss Mary O'Leary, Louisville, President; Mrs. A. L. Sykes, Chicago, Second Vice-President  
 (2) Miss Ella Eggers, Mr. and Mrs. Frank Hoersting, Frank, Jr., of Dayton; President-Elect Paul L. Biersach of Milwaukee, and "Tony" Howe of Cleveland—All Pretty Nice Fellows at That  
 (3) The Chicago Ladies—Thirteen Strong—at the Crest Country Club  
 (4) Uncle George Thesmacher of Cleveland  
 (5) In Line for Barbecue at the Ranch—Yes, That Hungry Looking Fellow at the Extreme Right Is None Other Than Our Own George Harms  
 (6) The Thirteen Louisville Delegates Posed, but It Seems That Two "Fell Off" the Film—Too Bad!  
 (7) No Need to Introduce These Folks "Stretching" at Stamps, Arkansas. Mrs. Will Harms of Rock Island Apparently Is Trying to Hide at the Left and George L. Bennett of the Sheet Steel Extension Committee Doesn't Care Who Sees Him—He's Happy  
 (8) Rudy Jobst and Charlie Louis, the Flower of Peoria



E. O. Wood, Fort Worth, President of the Texas Association

how to play poker, or maybe he learned that sometimes it is more profitable to hire an assistant (especially in a stud poker game) than do the playing himself. Five dollars and thirty cents is pretty good returns on an investment of \$1.00, isn't it, Art?

Such old-timers as Harvey Manny, Ohio Secretary Abbott and Art Glessner now realize there are others who can play stud.

As for pinochle, if you want to learn anything about the game, ask "Tony" Howe, Mrs. Howe or "Uncle" George Thesmacher. And when it comes to "rolling the bones," just see the Louisville ladies.

Here I've started on the special train, when I ought to say something about the St. Louis bunch.

When it comes to real hospitality, you certainly must hand it to St.





(Group B). (1) The Ohio Ladies Were Well Represented—Meet Miss Ella Eggers of Dayton, Mrs. A. L. Howe of Cleveland and Mrs. Frank Hoersting of Dayton  
 (2) Fort Worth, St. Louis and Peoria Meet—Mrs. A. A. Hefflin, Mrs. R. L. Meier and Mrs. Henry Baumann  
 (3) J. C. Neumann of Springfield and Etta Cohn of Chicago Do Their Best to Look Pleasant  
 (4) Art Glessner and Herb Symonds and a Trio of Stamps (Arkansas) Belles. Herb Said He Would "Murder" Me if I Ran This, but He's in California, so I Should Worry  
 (5) Louis Luckhardt of Pittsburgh; J. C. Neumann of Springfield; Dave Farquhar of Chicago; John King and Trow Warner

Louis. They sure did treat us right—met us at the train, dined and wine us (don't page Volstead). "Jules" Gerock—or was it "Herb" Symonds—even donated some Mexican soda pop (?) that had been sent him for his personal use.

Under ordinary circumstances, the ride to Dallas would have been tiresome, but there isn't one of the 107 that made up the special train who can say that he or she was bored for even one minute. We all were pretty well acquainted by the time we left St. Louis, and when we reached Little Rock we were calling each other by our first names.

Last year and the year before, when Harry Stanyer made his speech inviting us to Dallas, we were all a little bit skeptical, wondering how he was going to make good. Well, not only did Texas make good—it more than made good.

Ohio has the convention next year, and that Ohio bunch surely will have to do some stepping in order to anywhere near meet Texas.

Dallas is a beautiful city in more



(Group C) (1) Louis Bailen of Louisville Is Some "Greaser." Don't Overlook the "Wild Animal" on Bailen's Shoulder. Wonder What Was in the Flask His Friend Is Drinking From  
 (2) A Native Texan—H. S. Chancey; He Sells Wheeling Steel Products, When He Isn't Chasing "Bulls"—Now, Isn't He Irresistible!



ways than one. Never have I seen such pretty girls—even the girls and clerks in the stores were “dolled up” for the occasion, and they surely were pretty. No wonder



National Tinnners' Red Tommy (He's the Fellow With the Apron), Geo. Downig of San Antonio, Miss Abney and Miss Hutchinson of Louisville Make a Happy Quartette

most of our (men) delegates wanted the convention to run another week.

If I were to go to a National Sheet Metal convention and not come home with a pretty souvenir from the National “Tinnners' Red” folks, I believe it would be the disappointment of my life. This year “Tinnners' Red” Thompson surprised the ladies with beautiful 18-inch imported Japanese fans, and the best part of it all is there was not a line of advertising on the fan,



Mrs. Tom Owen, Dallas—The Leading Lady

but I'll wager that not only the ladies, but their husbands and friends will remember a long time from whom they received the fans. The men were given handy brass ash trays.

A. L. Kahlenberg of Friedley-Voshardt Company distributed Texas “steers” made of bronze, and “Tony” Howe of the J. M. and L.



Harry Stanyer, Dallas—The Wizard Who Put It Over

A. Osborn Company helped bring the convention home by furnishing pencils and real leather covered memo books (of good size).

My stenographer has just told me that I am getting pretty long winded, so instead of going ahead and telling you all the things that happened, I am going to show you pictures of different scenes.

Those of you who weren't there can't help but feel jealous when you see how happy and full of life everybody looks, and to those of you who were there, these pictures will bring pleasant recollections.

I'm only sorry I did not succeed in getting pictures of everybody. It's pretty hard to gather a “gang” together and if some folks were omitted it was simply because I

couldn't get ahold of them, or the films gave out.

*By the way, if you want any of these pictures for your own albums, just drop us a line and we will be more than glad to furnish them to you. Order by group and number so that there will be no mistake.*

Three cheers for Dallas!

\* \* \*

I had the extreme pleasure of meeting and visiting with Mr. and Mrs. M. E. Ticen, of the XXth Century Heating and Ventilating Company, who came in to see me on Monday of this week. Mr. Ticen is located in Chicago and represents the XXth Century Heating and Ventilating Company in this territory.

\* \* \*

Down in an Ohio city recently a bootlegger's Lincoln car had collided with a truck laden with milk from the country. Can after can splashed into the street, and, of course, the world assembled to see the fun.

E. C. Fox, of the Independent Register Company, happened along after the crowd assembled. He stopped to see what had happened, and catching sight of the milk on the street between the crowd, he exclaimed, “My, what an awful waste!” He was entirely squelched, however, when the stout washwoman who was standing in front of him turned and said, “Mind your own business.”

\* \* \*

The dear old Scotch woman tramped miles over the hills to get a bottle of medicine for a small boy who was ill in her remote village. When she had described the symptoms, the doctor set about preparing the mixture, one ingredient of which was a poison which could be administered only in the smallest quantities. She watched him pouring it out with the utmost care into the measuring glass. He poured a little from the bottle, held the glass up to the light, and then put in a few more drops. “Ah, doctor,” she said reproachfully, “you needna be sae stingy. Remember, it's for a puir wee orphan laddie.”

## The Editor's Page

### Getting the Most Out of Sheet Metal Contracting

**H**AVE you ever stopped to think of how important a place the architect holds in the building world? No doubt most of you sheet metal contractors at least have. You have probably been denied the privilege of bidding on more than one job because of the unfriendliness of some architect.

Therefore you have come to the conclusion that the architects in your town would seem to be pretty important fellows to cultivate. Perhaps you're right. Maybe you have even gone so far as to try it.

If you were unsuccessful in your attempts, did you stop to analyze the reason why? Are you sure that you know your "stuff" well enough to be able to offer intelligent suggestions on the application of sheet metal when talking to an architect?

I know a sheet metal contractor who is on friendly terms with practically every architect in his town. He seems to know every building project that is going into the hands of the architects. He is constantly calling on them, offering suggestions while the building plans are being formulated. He makes it a point to look out for the best interests of the builder and those of the architect in making these suggestions.

The consequence is that he has so ingratiated himself with the architects that they call him on the 'phone and ask him for suggestions on certain matters, with the result that competition, insofar as price goes, has long since ceased to worry this contractor. His name on a contract is sufficient bond for any of the architects in that town. This contractor is making money, too, strange as it may seem to some of you.

What a pleasure that sheet metal contractor must get out of his business! The profit he makes seems to be only incidental and secondary in importance with him, and yet he makes a fair profit on his jobs.

The point is that he lives in the sheet metal contracting business. He derives pleasure in seeing a sheet metal job well done and rendering service to somebody. He derives pleasure in the knowledge that his ingenuity, his energy, his foresight and common sense judgment are the means of supplying some forty odd families of his workmen with the wherewithal to be happy by giving steady employment to the heads of these numerous families at good wages.

If you don't seem to be getting the proper salutation from your architects, investigate and find out whether you are giving them something in return for the consideration you expect from them. Sheet metal contracting is a give and take proposition, pure and simple. The only difference is that you have got to be the first to give. You have got to take the initiative.

### Three Rousing Cheers for the National Ladies' Auxiliary

**A**NATIONAL organization of Ladies' Auxiliary to the National Association of Sheet Metal Contractors was formed at Dallas, Texas, during the national convention.

The ladies are to be congratulated upon their action, because it is altogether fitting and proper that there should be a National Ladies' Auxiliary.

In forming this body the ladies have proved beyond a question of doubt their willingness and eagerness to cooperate to the fullest extent with the men in making the sheet metal industry one of the most serviceable industries in the country today.

With the women thus organized and doing nationally what the few locals who had the temerity to blaze the way have done, there is nothing that the industry as a whole cannot accomplish.

As so often happens, however, these bodies are formed and the delegates leave the convention hall with the best intentions in the world of carrying out the purposes of the formation of the organization; the influence of the convention and of the leaders is still upon them; they are inspired to greater things.

But after they arrive at their homes, the enthusiasm sort of wears off and interest in the project is allowed to lapse.

Let us hope that such will not be the case with the members of the National Ladies' Auxiliary. There is too much work to be done in the industry to allow interest to lag.

The Louisville and Dallas delegations have shown a fine spirit throughout. Their officers are of the calibre who can do things in a national way, as are the officers who have been elected to carry out the destiny of the National Ladies' Auxiliary.

### Why Margin Is Figured on Selling Price

**B**ECAUSE neither margin nor profit is made until the sale is made.

Because all other retail business figures are based on their relation to sales, and all business figures should be uniformly determined.

Because selling expenses are always figured in relation to sales.

Because taxes are based on sales.

Because total sales are usually available at a glance.

Because allowances and discounts are always made on sales.

Because mark-down is always figured on selling price.

Because commission payments are always based on sales.

# Cold Air Connections and Their Relation to the Heating System (Continued)\*

## Expanding Power of Gases Makes Warm Air Heating System Possible

By JOHN S. WALKER, Heatcraft Institute, Peoria, Ill.

THE furnace shown in Fig. 8 is overheating on the right side. The warm air pipes taken off the right side of the hood are receiving an insufficient supply of warm air. Moving B to the right, side as shown in Fig. 6 (in previous article), will remedy this trouble.

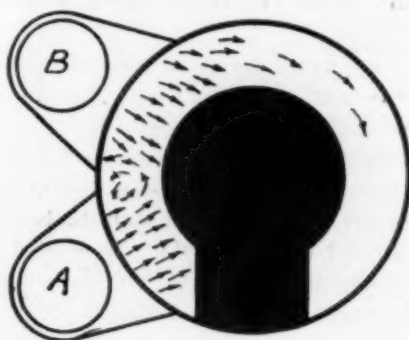


Figure 8

Occasionally we hear of warm air coming out of a cold air register. If more than one cold air shoe has been used, divider plates may be needed, as was the case in Fig. 8.

More often, the trouble is caused by the cold air shoe being cut too high up on the casing, as shown in Fig. 9. Radiant heat does not warm the air through which it passes. It

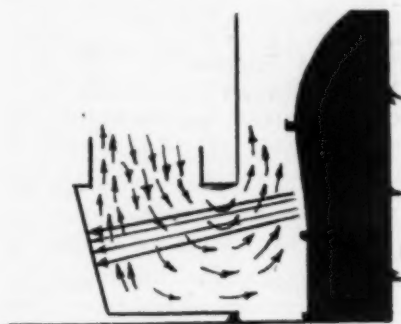


Figure 9

travels in a straight line like light, heating the object on which it falls, which in turn heats the air.

In Fig. 9 the long, straight lines indicate rays of radiant heat which are not intercepted until they strike the cold air shoe. This heats up the cold air before it reaches the fur-

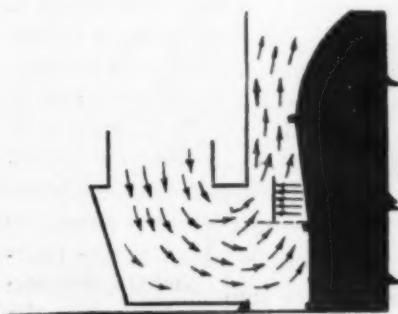


Figure 10

nace casing and starts a counter current up the cold air duct, causing turbulence and slowing up the air flow. This greatly decreases both furnace efficiency and capacity.

A small radiation shield of sheet iron will intercept this radiant heat,

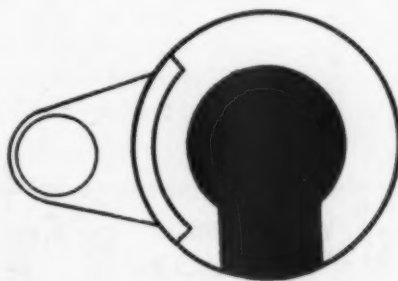


Figure 11

as shown in Fig. 10. It should start on a level with the bottom of the fire pot and extend several inches above the top of the cold air shoe. This should be bent to conform to the curve of the casing and placed at such a distance that the effective free area of the cold air shoe is not reduced. (Fig. 11.)

### Homer Furnace Company Issues New Furnace and Products Catalog

The Homer Furnace Company, Coldwater, Michigan, has recently issued its latest dealer catalog, No. 110-C. The book is a 52-page, 8½x11-inch publication, containing the latest developments in warm air heating as brought out by the Homer Furnace Company. New types of furnaces such as the new Homer Grand are fully described.

Not only does the catalog treat the subject of warm air heating in so far as the installation of the furnace is concerned, but it also goes into the fittings end of it, as well as the pipeless furnace.

A great deal of information of extreme value to the warm air furnace installer on the subject of heating churches and other large buildings is also contained in the book. Fireplace heating equipment has been given a place in the book, making it a complete index of Homer Furnace Company products and supplies. Copies of the catalog will be forwarded to furnace men requesting them.

### Finds Help Wanted Columns Pull Quick Results

I. Wilson & Company, Dunlap, Iowa, sheet metal contractors, write as follows: "Please remove our advertisement for a plumber and sheet metal man. We have already found a man that fills our needs, thanks to AMERICAN ARTISAN."

We have always found that the surest way to get the right man or to sell tools quickly is to use your free want ad service.

Yours very truly,

I. WILSON & COMPANY.  
Dunlap, Iowa.

\*All rights reserved.



## Window Displays Not Difficult to Make, But Are Essential

*Cleanliness, Correct Lighting, Harmony of Colors Are Chief Factors in Display Background*

A MODERN display window can be constructed without installing an entirely new front. Minor improvements such as the building of a background and the installation of correct lighting, is in most cases, all that is necessary.

The floor of the window must be in such shape that it can be kept clean. A varnished floor is the most satisfactory. Nothing detracts from a display as much as a dull, marred, or perhaps a dirty floor. A hardwood floor of either oak or maple, or a good grade of soft wood is within reach of every merchant's pocket book. For the sake of introducing variety into your displays, you will occasionally cover your floor with crepe paper in pleasing colors. Avoid using too many tacks. No matter how small, a hole in the floor will accumulate dirt and in time it forms a spot.

Again a floor of a show window can be covered to an advantage with wall board squares about 8"x8", painting one half of the number in one color and the other half in a shade to harmonize with the first. The blocks are then laid and the colors alternated to give a tile or checkerboard effect. The entire color scheme of the window can be changed by painting the other side of the blocks a different color, and re-laying them upside down for another display.

Every show window should have a background. This makes it impossible for the passer-by to look into the store. The people within the store will attract the customer's attention away from the merchandise in the window.

A window enclosed to the ceiling has several advantages. Flies and dust are more easily kept out in the summer time. Then frosting of the glass can be avoided by boring holes through the sash below and also above the glass, letting in fresh air

which travels up the glass and keeps the frost off the windows.

The top of the wood panels which make up the background should never be over 5½ feet above the floor of the store, no matter what the height is from the store floor to the bottom of the window. Glass should then be used extending to the ceiling. If the store front is equipped with a prism glass section above the plate glass, then the construction of the background will be slightly different. In such windows the paneled background should extend to the height of the plate glass, with a ceiling at the top extending from the upper edge of the background to the sash between the prism and the plate glass sections.

Proper lighting is necessary in a window. The lights must be concealed from the eyes of the looker by means of a valance across the top of the glass. Back of the valance, the reflectors can be fastened on a conduit at an angle, so as to throw the light towards the back of the window. The best reflector is the angle type with a silvered interior. Sometimes the reflectors have to be set at different angles for it is evident that a high and shallow window, requires different illumination from that of a low and deep window.



Arkansas Retail Hardware Association Convention, Little Rock, May, 1927. L. P. Biggs, Secretary, Little Rock.

Southern Hardware Jobbers' Association, Peabody Hotel, Memphis, Tennessee, May 10 to 13, 1927. John Donnan, Secretary, Richmond Virginia.

Old Guard Southern Hardware Salesmen's Association, Peabody Hotel, Memphis, Tennessee, May 11, 1927. R. P. Boyd, Secretary, R. F. D. No. 4, Box 19, Knoxville, Tennessee.

Western Warm Air Furnace & Supply Association, June 1 and 2, 1927, Peoria, Illinois. John H. Hussie, Sec-

retary, 3624 La Fayette Avenue, Omaha, Nebraska.

Mississippi Retail Hardware and Implement Association Convention and Exhibition, headquarters, White House, Biloxi, June 13, 14, 15, 1927. Buy Nason, Secretary, Columbus.

National Retail Hardware Association Congress, Mackinac Island, Michigan, June, 1927. H. P. Sheets, Secretary-Treasurer, 130 East Washington Street, Indianapolis, Indiana.

Missouri Sheet Metal Contractors' Association at Sedalia, Missouri, July 12 and 13, 1927. Ben Kolbenschlager, 3618 North Grand Street, St. Louis, Secretary.



Opal Glass Letters for Electric Signs From Werner's Metal Shop, Tracy, Minnesota.

Please advise us where we can purchase opal glass letters for electric sign work.

Ans.—Chicago Miniature Lamp Works, 652 West Lake Street, and Opalite Sign Company, Incorporated, 201 East Ohio Street, both of Chicago, Illinois.

### Granddaughter of R. W. Blanchard Dies as Result of Drinking Bottle of Cleaning Fluid

Little Betty Lee Faber, the 16-months-old granddaughter of R. W. Blanchard, Chicago, President of Hart & Cooley Company, died last week after drinking the contents of a bottle of liquid cleaning fluid.

The deepest sympathy of the entire sheet metal and warm air heating industry goes out to the grief stricken Faber and Blanchard families.

### Palmer W. Holmes Opens Office as Manufacturers' Representative

Mr. Palmer W. Holmes, for 30 years with Lalance and Grosjean Manufacturing Company, recently resigned, has established an office at 1066 Peoples Gas Building, Chicago, as manufacturers' representative of hardware and house furnishing goods in the Central Western territory.

Mr. Holmes will be glad to hear from manufacturers desiring to have their lines represented in this territory.



**Doubly Durable  
Because  
Doubly Protected**

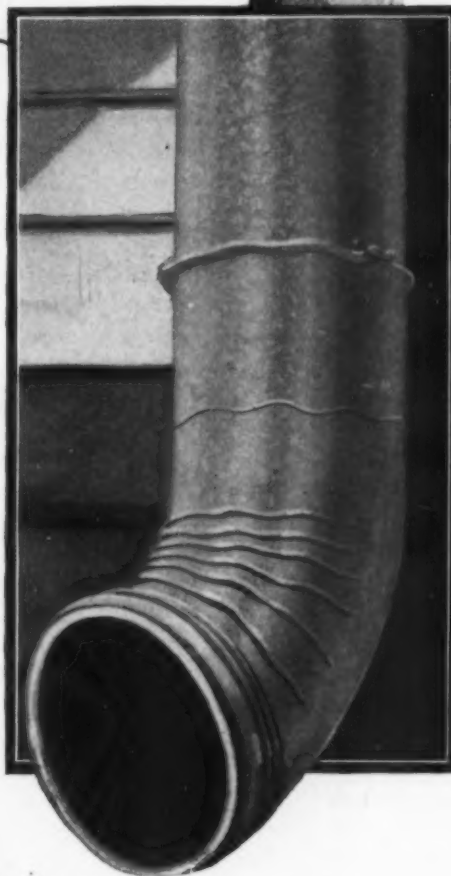
- 1** The base metal is the highly rust-resistant Copper Alloy, known everywhere as Ohio Metal.
- 2** The conductor is completely formed and finally hand-dipped in pure molten zinc.

**A** SAMPLE of Wheeling Hand-Dipped Conductor will enable you to judge why the trade, generally, accepts it as the most satisfactory and the most economical conductor made.

Note that the metal base is completely imbedded in a thick, impenetrable protective coating of pure zinc. Note also that the seams, edges and surfaces are thoroughly and uniformly covered—the result of *hand-dipping after forming*.

Exposed to the air, the zinc first protects itself by a natural surface oxidation. This ceases abruptly after closing the pores of the zinc and a lasting barrier to the elements is the result.

Made of Ohio Metal, hand-dipped in pure molten zinc, this conductor is stronger, more rigid and doubly durable. Let us send you a sample for close-up inspection.



# Wheeling

## HAND DIPPED CONDUCTOR

Wheeling Corrugating Company, Wheeling, W. Va.

NEW YORK  
ST. LOUIS

PHILADELPHIA  
RICHMOND

CHICAGO  
CHATTANOOGA

KANSAS CITY  
MINNEAPOLIS

# Current Operations in Steel Industry Well Under April Average—Production in Chicago District Decreases

## Keener Competition Develops in Pig Iron Market—Lead Takes a Sharp Drop

**S**TEEL ingot output by all companies in April, while larger than in any preceding April on record, was 5.2 per cent less than in March this year, but March production was the peak of the industry for all time. Last month's output was also larger than in either February or January of this year and averaged higher than in any month of 1926 with the exception of March. Current operations, however, by both Steel Corporation and independents are considerably lower than the April average.

There has been no marked slowing down in demand for steel in the Chicago district, but production showed signs of decreasing slightly at least.

### Pig Iron

The principal development in the pig iron market at Pittsburgh is the sale of 2,000 tons of basic to one concern at a price understood to be \$18.50, Pennsylvania steelworks furnace, having a freight rate of \$1.13. No other inquiries for basic are pending.

Valley furnaces are quoting \$18.50, that being the minimum price named on the foregoing business. Those previously quoting \$19 have set aside that price.

Bessemer iron continues to be sold in small lots at \$19.50, valley. That price is untested by large tonnage inquiries. The foundry grade continues to move heavily on contracts.

Prompt sales are light, and occasionally carloads up to 500 tons are moved at \$18.50, valley. Malleable iron is held at the same figure. No inquiries are pending, except from the Cincinnati district for shipment to Indiana. Valley furnaces are excluded because of the \$1 higher freight rate.

At Chicago, Northern pig iron

sellers are holding firmly to \$20, Chicago furnace, for No. 2 foundry and malleable in immediate Chicago territory. In competitive freight territory, \$20 is being shaded to meet St. Louis competition in the Tri-Cities and south central Illinois territory, and east of the Chicago district in Michigan to meet Detroit and Toledo competition. Spot sales are light.

One inquiry has appeared for 500 tons of foundry for last half, but comparatively little iron has been sold for shipment beyond June 30.

Pig iron orders at Birmingham are small but numerous, and the aggregate is sufficient to warrant steady production. Quotations are firm at \$18, base, Birmingham. Stocks on furnace yards are normal.

Large melters who in the past purchased 10,000 to 40,000 at a time now buy 1,000 to 5,000 tons. Smaller interests buy for two weeks ahead.

### Copper

Producers of copper have held well at 13.00 cents, Connecticut,  $\frac{1}{8}$  to  $\frac{1}{4}$  cent more in the Midwest. Little new buying has been done the past week, but shipments have been of good size. Some producers, however, report domestic shipments are a little spotty.

Consumers have shown little interest and producers have avoided pushing the market. There are some reports of small lots offered at shaded prices in the outside market.

### Tin

April statistics on tin are strong, showing world visible supplies cut 1,592 tons to the lowest since last summer, at 13,849 tons. Seldom has the figure been much lower. Small shipments were made from the Straits and from the Dutch East Indies.

Domestic deliveries last month

were 6,720 tons, slightly over last year's monthly average, but not heavy for this season. Stocks and landing at 1,704 tons were practically unchanged.

Buying of tin this week has been light. However, small stocks help to make nearby positions relatively firm though the market lately has been slipping.

### Zinc

Buying of zinc has been small, both by galvanizers and brass mills. The Joplin ore market continues to weaken with stocks piling up on account of small purchases by smelters. With ore at \$40 a ton, the smelting margin on a ton of ore is \$21, so that there is little profit in the market for either miners or smelters.

### Lead

Lead now is quoted at the lowest level since the autumn of 1923 and is about  $\frac{1}{2}$  cent below the average of the past ten years.

Small demand and continued heavy production are the main reasons for the easiness in the market. Export as well as domestic interest is light.

### Solder

Chicago warehouse prices on solder are as follows: Warranted 50-50, \$40.75; commercial 45-55, \$37.75; plumbers', \$34.75, all per 100 pounds.

### Old Metals

Wholesale quotations in the Chicago district, which should be considered as nominal, are as follows: Old steel axles, \$17.00 to \$17.50; old iron axles, \$21.00 to \$21.50; steel springs, \$16.00 to \$16.50; No. 1 wrought iron, \$12.00 to \$12.50; No. 1 cast, \$15.25 to \$15.75, all per net tons. Prices for non-ferrous metals are quoted as follows, per pound: Light copper, 9 cents; zinc,  $4\frac{1}{2}$  cents; cast aluminum, 15 cents.



# The final cost of oxwelding

The success of the oxy-acetylene process and the remarkable growth in the extent and variety of its applications are convincing testimony that oxwelding is economically sound.

It is not possible that one gas company after another should have adopted oxwelded pipe lines unless there were both economy of installation and economy of upkeep. Plant after plant would not have standardized on oxwelded tanks and welded equipment if it were not sound operating policy. Thousands of engineers and operating executives sponsor the oxy-acetylene process by using it.

The final cost of the gas-welded joint, because of its greater ruggedness, longer life and elimination of maintenance, is always lowest.

## *Prest-O-Lite* DISSOLVED ACETYLENE

22 years old and still growing



THE PREST-O-LITE COMPANY, INC.  
Unit of Union Carbide and Carbon Corporation  
General Offices: Carbide and Carbon Building  
30 East 42d St., New York  
31 Plants—101 Warehouses

When writing mention AMERICAN ARTISAN—Thank you!

# Chicago Warehouse Metal and Furnace Supply Prices

AMERICAN ARTISAN AND HARDWARE RECORD is the only publication containing Western Hardware and Metal prices corrected weekly.

## METALS

### PIG IRON

Chicago Fdy., No. 2.....	\$20 00
Southern Fdy., No. 2.....	24 01
Lake Superior Charcoal.....	27 04
Malleable .....	20 00

### FIRST QUALITY BRIGHT

#### TIN PLATES

IC 30x28 112 sheets....	\$25 10
IX 20x28.....	29 60
IXX 20x28 66 sheets....	16 20
IXXX 20x28.....	17 55
IXXXX 20x28.....	18 95

#### TERNE PLATES

IC 20x28, 40-lb. 112 sheets	\$26 00
IX 20x28, 40-lb. 112 sheets	28 50
IX 20x28, 26-lb. 112 sheets	21 75
IX 20x28, 26-lb. 112 sheets	24 25
IX 20x28, 26-lb. 112 sheets	29 00
IV 20x28, 26-lb. 112 sheets	22 50
IV 20x28, 18-lb. 112 sheets	18 50

"ARMCO" INGOT IRON PLATES  
No. 8 ga. up to and including  
1/4 in.—100 lbs. ....\$4 55

#### COKE PLATES

Cokes, 80 lbs., base, 20x28	\$13 60
Cokes, 90 lbs., base, 20x28	13 80
Cokes, 100 lbs., base, 20x28	14 00
Cokes 107 lbs., base, 1c	
20x28	14 30
Cokes, 135 lbs., base IX	
20x28	16 40
Cokes, 155 lbs., base, 56	
sheets	9 20
Cokes, 175 lbs., base, 56	
sheets	10 05
Cokes, 195 lbs., base, 56	
sheets	10 90

#### BLUE ANNEALED SHEETS

Base 10 ga.....per 100 lbs.	\$2 80
"Armco" 10 ga.....per 100 lbs.	4 00

#### ONE PASS COLD ROLLED

##### BLACK

No. 18-20.....per 100 lbs.	\$2 75
No. 22.....per 100 lbs.	3 90
No. 24.....per 100 lbs.	3 95
No. 26.....per 100 lbs.	4 05
No. 27.....per 100 lbs.	4 10
No. 28.....per 100 lbs.	4 20
No. 29.....per 100 lbs.	4 35
No. 30.....per 100 lbs.	4 45

#### "ARMCO" GALVANIZED

"Armco" 24.....per 100 lbs.	\$6 15
-----------------------------	--------

#### GALVANIZED

No. 18.....per 100 lbs.	\$4 30
No. 18.....per 100 lbs.	4 45
No. 20.....per 100 lbs.	4 60
No. 22.....per 100 lbs.	4 65
No. 24.....per 100 lbs.	4 80
No. 26.....per 100 lbs.	5 05
No. 27.....per 100 lbs.	5 15
No. 28.....per 100 lbs.	5 30
No. 29.....per 100 lbs.	5 70

#### BAR SOLDER

Warranted 50-50.....per 100 lbs.	\$40 75
Commercial 45-55.....per 100 lbs.	37 75
Plumbers.....per 100 lbs.	34 75

#### ZINC

In Slabs .....	\$8 50
----------------	--------

#### SHEET ZINC

Cash Lots (600 lbs.).....	\$11 75
Sheet Lots .....	12 75

#### BRASS

Sheets, Chicago base.....	18c
Mill Base .....	18c
Tubing, brazed base.....	27c
Wire, base .....	19c
Rods, base .....	16 1/4c

#### COPPER

Sheets, Chicago base.....	21 1/2c
Mill Base .....	20 1/2c
Tubing, seamless base.....	24 1/2c
Wire, No. 9, B & S Ga.....	17 1/2c
Wire, No. 10, B & S Ga.....	18c
Wire, No. 11, B & S Ga.....	18 1/2c
Wire, No. 8, B & S Ga. and heavier .....	17 1/2c

## LEAD.

American Pig .....	\$7 40
Bar .....	8 40
Sheet	
Full Coils .....	per 100 lbs. 14 00
Cut Coils .....	per 100 lbs. 14 25

## TIN

Pig tin .....	per 100 lbs. \$75 00
Bar tin .....	per 100 lbs. 76 00

## HARDWARE, SHEET METAL SUPPLIES, WARM AIR FURNACE FITTINGS AND ACCESSORIES.

### ASBESTOS

Paper up to 1/16.....	6c per lb.
Roll board .....	6 1/4c per lb.
Mill board 3/32 to 1/2.....	6c per lb.
Corrugated Paper (250 sq. ft. to roll).....	\$6.00 per roll

### BRUSHES

Hot Air Pipe Cleaning	
Bristle, with handle, each	\$0 85
Flue Cleaning	
Steel only, each.....	1 25

### BURRS

Copper Burrs only.....	40-50c
------------------------	--------

### CEMENT, FURNACE

American Seal, 5-lb. cans, net	\$ 40
American Seal, 10-lb. cans, net	80
American Seal, 25-lb. cans, net	2 50
Pecora .....	per 100 lbs. 7 51

### CHIMNEY TOPS

Adams' Revolving		
Wt. Doz.	Price Doz.	
4 in.....	21 lbs.	\$11 00
6 in.....	24 lbs.	11 50
7 in.....	30 lbs.	13 50
8 in.....	32 lbs.	15 00
9 in.....	51 lbs.	16 50
10 in.....	56 lbs.	18 00
12 in.....	66 lbs.	22 00
14 in.....	110 lbs.	36 00

### CLINKER TONGS

Front Rank, each.....	\$0 75
Per doz. ....	8 40

### CLIPS

Damper	
Acme, with all tail pieces,	
per doz. ....	\$1 25
Non Rivet tail pieces,	
per doz. ....	25

### COPPERS—Soldering

Pointed Roofing	
3 lb. and heavier.....	per lb. 40c
2 1/2 lb. ....	per lb. 45c
2 lb. ....	per lb. 48c
1 1/2 lb. ....	per lb. 55c
1 lb. ....	per lb. 60c

### CORNICE BRAKES

Chicago Steel Bending	
No. 1 to 6B.....	Net

### CUT-OFFS

Gal., plain, round or cor. rd.	
26 gauge .....	30c
28 gauge .....	35c

### DAMPERS

"Yankee" Hot Air	
7 inch, each 20c, doz.....	\$1 75
8 inch, each 25c, doz.....	2 40
9 inch, each 30c, doz.....	2 75
10 inch, each 32c, doz.....	3 00

### Smoke Pipe

7 inch, each.....	\$0 35
8 inch, each.....	40
9 inch, each.....	50
10 inch, each.....	60
12 inch, each.....	90

### Reversible Check

8 inch, each.....	\$1 55
9 inch, each.....	1 70

### Diamond Smoke Pipe

7 inch, doz.....	\$ 5 00
8 inch doz.....	8 00
9 inch, doz.....	12 00
10 inch, doz.....	15 00

### Adams' Sheet Metal

7 inch, doz.....	\$ 1 60
8 inch, doz.....	2 20
9 inch, doz.....	2 50
10 inch, doz.....	2 80

### DIGGERS

Iwan's Split Handle (Eureka)	
4-ft. Handle.....per doz.	\$14 00
7-ft. Handle.....per doz.	35 00
Iwan's Hercules pattern, per doz. ....	14 90

### EAVES TROUGH

Galv. Crimpedge, crated 75 & 5% Zinc, "Barnes" .....	60c
--	-----

### ELBOWS

Conductor Pipe	
Galv., plain or corrugated, round flat Crimp.	
28 Gauge .....	60c
26 Gauge .....	45c
24 Gauge .....	15c
Galv. & Terne Steel	
Plain Rd. and Rd. Corr.:	
28 Ga. ....	60c
26 Ga. ....	45c
24 Ga. ....	15c

### Square Corrugated

No. 28 Gauge.....	50c
26 Gauge .....	35c

### Portico Elbows

Standard Gauge Conductor Pipe, plain or corrugated.	
Not nested .....	70 & 5c
Nested solid .....	70 & 5c

### Sq. Corr., A. & B. & Octagon:

28 Ga. ....	50c
26 Ga. ....	35c

### Portico

1", 1 1/4", 1 1/2".....	45c
-------------------------	-----

### Copper

16 oz., all designs.....	45c
--------------------------	-----

### Zinc—

All styles .....	60c
------------------	-----

### ELBOWS—Steve Pipe

1-piece Corrugated, Uniform Blue	
"Milcor" No. 28 Gauge. Doz.	
5-inch .....	\$1 25
6-inch .....	1 35
7-inch .....	1 75

### Special Corrugated

6-inch .....	\$1 00
7-inch .....	1 60

### Adjustable—Uniform Blue

"Milcor" No. 28 Gauge. Uniform Blue.	
5-inch .....	\$1 75
6-inch .....	1 85
7-inch .....	2 15

### WOOD FACES—50% off list.

726-6-12 1/4% (100 rods).....	\$25 68
1948-6-14 1/4% (100 rods).....	41 82

### FENCE

726-6-12 1/4% (100 rods).....	\$25 68
1948-6-14 1/4% (100 rods).....	41 82

### FILES AND RASPS

Heller's (American) .....	50-10c
American .....	50-10c
Arcade .....	50c
Black Diamond .....	50c
Great Western .....	50c
Kearney & Foot.....	50c
McClellan .....	50c
Nicholson .....	50c
Simonds .....	50c

### FIRE POTS

Clayton & Lambert's	
East of west boundary line of Province of Manitoba, Canada, No. Dakota, So. Dakota, Nebraska, Kansas, Oklahoma, Arizona, San Angelo and Laredo, Texas .....	52c
West of above boundary.....	48c

### Geo. W. Diener Mfg. Co. Ea.

No. 02 Gasolene Torch, 1 qt. ....	\$ 5 55
No. 0250, Kerosene, or Gasolene Torch, 1 qt. ....	7 50
No. 10 Tinner's Furn. Square tank, 1 gal. ....	12 60
No. 15 Tinner's Furn. Round tank, 1 gal. ....	12 00
No. 21 Gas Soldering Furnace .....	3 60
No. 110 Automatic Gas Soldering Furnace .....	10 50

### Double Blast Mfg. Co.

Gasolene, Nos. 25 and 36.....	60c
-------------------------------	-----

### Quick Meal Stove Co.

Vesuvius, F. O. B. St. Louis 30% (Extra Dist. for large quantities)	
---	--

### GALVANIZED WARE

Pails (Galv. after made), 10-qt. ....	\$2 12
Tubs (Galv. after made).	
No. 1 .....	6 00
No. 2 .....	6 85

### GLASS

Single Strength, A. 25-in. brackets .....	87c
Single Strength, A. 34 to 40-in. bracket .....	36c
Single Strength, A. all other brackets .....	86c
Double Strength, A. all sizes .....	86c

### HANGERS

Conductor Pipe	
Milcor Perfection Wire.....	25c
Eaves Trough	
Milcor Eclipse Wire.....	15c
Milcor Triplex Wire.....	10c
Milcor Milwaukee Extension 10c	
Milcor Steel (galv. after forming) List .....	plus 12 1/2%
Milcor Selflock E. T. Wire, List .....	plus 50c

### HOOKS

Box V. & B. No. 1, each.....	\$0 35
------------------------------	--------

### Conductor

"Direct Drive" Wrought Iron for wood or brick.....	15c
Box V. & B. No. 1, each.....	\$0 35

### HUMIDIFIERS

"Front-Rank," Automatic	
In single lots .....	50c
In lots of 10 or more.....	50-55c
In lots of 25 or more.....	50-10c
Vapor pans, etc., each.....	50c

### LIFTERS

Stove Cover .....	per gro. \$6 00
Alaska .....	per gro. 4 75

### MALLETS

Hickory .....	per doz. \$2 25
---------------	-----------------

### MITRES

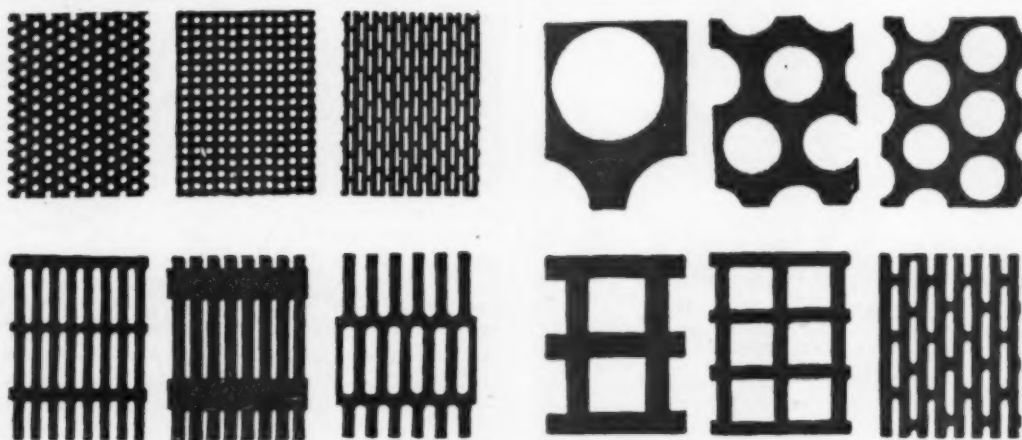
Galvanized steel mitres.	
28 Ga. ....	70
26 Ga. ....	60-20

### NAILS

Cut Steel .....	\$4 35
Cut Iron .....	4 35
Wire	
Common .....	2 95
Cement Coated .....	2 95

(Continued on Page 36)

## PERFORATED METALS



All Sizes and Shapes of Holes in all Kinds and Thicknesses of Metal.  
 Punched Metal Grilles, Register Faces, Ventilators, etc.  
 Guard Material for Machines and Belts. We supply a complete line of Accessories  
 Screens for Grain, Minerals or anything to be screened.  
 Perforated Tin and Brass always in stock

# THE HARRINGTON & KING PERFORATING CO.

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New York Office: 114 Liberty Street

## THE J. M. & L. A. OSBORN COMPANY—CLEVELAND

*"Everything Used in Sheet Metal Work"*

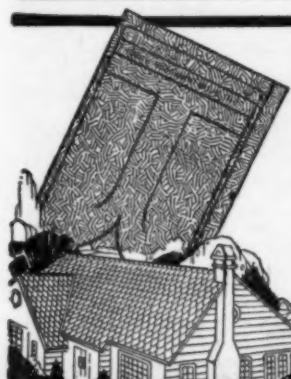
USE  
OSBORN'S  
LEAD COTE  
FOR  
DURABILITY

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LEAD COTE

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LEAD COTE  
FOR  
ECONOMY

*"The Sheet Metal of Modern Prominence"*

**"OSBORN'S LEAD COTE" WILL NOT FLAKE OR PEEL**



WE make both kinds of galvanized shingle — hand dipped being stamped from prime tin plate and immersed one at a time in molten zinc and the other kind which are stamped from sheets already galvanized.

We also make painted shingles—either red or green.

CORTRIGHT METAL ROOFING CO.  
 50 N. 23rd Street, Philadelphia  
 528 S. Clark Street, Chicago

**CORTRIGHT METAL SHINGLES**



**Resists Rust  
 Works Easier  
 Reduces Labor Costs  
 Satisfies Customers**

THE AMERICAN ROLLING MILL COMPANY  
 Middletown, Ohio

Export: The ARMCO International Corp.  
 Cable Address: ARMCO, Middletown.



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NETTING, POULTRY		ROOFING	
Galvanized before weav-	—	Best grade, slate surf. prep'd	\$2 20
ing .....	57½-5%	Best tale surfaced. ....	2 65
Galvanized after weaving.	62½-6%	Medium tale surfaced. ....	2 00
—	—	Light tale surfaced. ....	1 30
—	—	Red Rosin Sheeting, per ton	57 00
PASTE		SCREWS	
Asbestos Dry Paste:	—	Sheet Metal	—
200-lb. barrel .....	\$16 00	7, ½x½, per gross. ....	\$0 52
100-lb. barrel .....	8 75	No. 10, ¾x3/16, per gross	68
35-lb. pall .....	3 50	No. 14, ¾x¼, per gross. ....	89
10-lb. bag .....	1 10	—	—
6-lb. bag .....	60	—	—
2½-lb. cartons .....	35	—	—
PIPE		SHEARS, TINNERS' & MACHINISTS'	
Conductor	—	Viking .....	\$22 00
Cor. Rd., Plain Rd. or Sq.	—	Lennox Throatless	—
Galvanized	—	No. 13 .....	35%
Crated and nested (all gauges) .....	75-2½%	Shear blades .....	10%
Crated and not nested (all gauges) .....	70-15%	(f. o. b. Marshalltown, Iowa.)	—
FURNACE PIPE		SHIELDS, REGISTER	
Double Wall Pipe and Fittings .....	50%	No. 1 "Gem" floor ....	\$12 00 doz.
Single Wall Pipe, Round	—	No. 2 "Gem" wall ....	6 00 doz.
Galvanized Pipe .....	50%	—	—
Galvanized and Tin Fittings	50%	—	—
LEAD		SHOES	
Per 100 lbs. ....	\$12 50	Galv. 23 Gauge, Plain or	—
—	—	corr. round flat crimp. ....	60%
—	—	26 gauge round flat crimp. ....	45%
—	—	24 gauge round flat crimp. ....	15%
—	—	—	—
—	—	SNIPS, TINNERS'	
—	—	Clover Leaf .....	40 & 10%
—	—	National .....	40 & 10%
—	—	Star .....	50%
—	—	Milcor .....	Net
—	—	SQUARES	
—	—	Steel and Iron .....	Net
—	—	(Add for bluing, \$3 per doz. net)	—
—	—	Mitre .....	Net
—	—	Try .....	Net
—	—	Try and Bevel. ....	Net
—	—	Try and Mitre. ....	Net
—	—	For's .....	per doz. \$6 00
—	—	Winterbottom's .....	10%
—	—	STOPPERS, FLUE	
—	—	Common .....	per doz. \$1 10
—	—	Gem, No. 1. ....	per doz. 1 10
—	—	Gem, flat, No. 3. ....	per doz. 1 00
—	—	VENTILATORS	
—	—	Standard .....	30 to 40%
—	—	WIRE	
—	—	Plain annealed wire, No. 8,	—
—	—	per 100 lbs. ....	\$3 05
—	—	Galvanized barb wire, per	—
—	—	100 lbs. ....	3 90
—	—	Wire cloth—Black painted,	—
—	—	12-mesh, per 100 sq. ft. ....	1 65
—	—	Cattle Wire—galvanized catch	—
—	—	weight spool, per 100 lbs. ....	\$ 65
—	—	Galvanized Hog Wire, 80 rod	—
—	—	spool, per spool. ....	\$ 18
—	—	Galvanized plain wire, No. 9,	—
—	—	per 100 lbs. ....	3 40
—	—	Stove Pipe, per stone. ....	1 10
—	—	WRINGERS	
—	—	No. 790, Guarantee	each \$ 5 10
—	—	No. 770, Bicycle	each 4 70
—	—	No. 670, Domestic	each 4 35
—	—	No. 110, Brighton	each 3 70
—	—	No. 750, Guarantee	each 5 10
—	—	No. 740, Bicycle	each 4 70
—	—	No. 22, Pioneer	each 3 40
—	—	No. 2, Superb	each 2 65

### The NEW IMPROVED "STANDARD" Rotable Ventilator



Patents pending

This favorite cone-shaped ventilator is now improved in several important points.

The weight of the ventilator body is now carried on a concave thrust bearing nested in the apex of the conical body. This bearing turns upon the pivot point of the stationary center spindle.

The bronze Guide Bushings are now made of non-corrosive bronze which minimizes friction and any tendency to screech when body is rotating.

There are other new features. Write today for new catalog and price list.

STANDARD VENTILATOR CO.,

LEWISBURG, PA.

## WIRE

electrical, rope, barbed, plain, nails (bright

and coated), tacks, spikes, bale ties, hoops, springs, netting, wire fences, steel posts, steel gates, trolley wire, rail bonds, flat wire, cold rolled strip steel, piano wire, round and odd-shape wire, screw stock, concrete reinforcement. Aerial tramways.

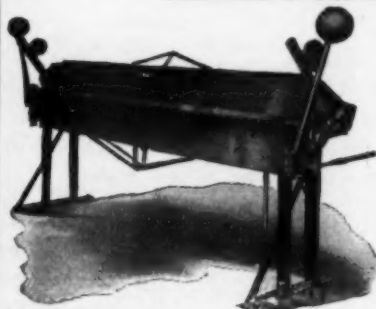
Illustrated books describing uses, FREE

**American Steel & Wire**

Sales Offices: Chicago, New York and All Principal Cities

**Company**

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THE BEST BRAKE FOR ALL PURPOSES: Most Durable, Easiest Operated, Low in Price; Made in All Lengths and to Bend All Gauges of Metal. Over 23,000 in use.

WRITE FOR PARTICULARS

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### The Double-Duty BRAKE SHEARS

"All-Nite" Model to cut 20 gauge and lighter

8 foot shears - \$55.00

"Special" geared to cut 16 gauge and lighter

" " - \$77.50

"Hand Pull" for lighter work and small shops

Cutting Carrier \$17.50

Fold up out of the way so brake work can be done.

All lengths.

A time and money saver fully guaranteed. Fit any brake.

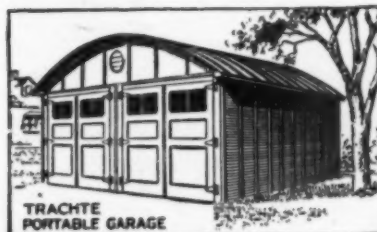
**ORDER NOW**

**10 DAYS' FREE TRIAL**

DOUBLE-DUTY MFG. COMPANY

32 B So. La Salle Street

Aurora, Ill.



TRACHTE PORTABLE GARAGE

## This Garage/

means bigger profits for you!

Trachte Portable Steel Garages and Buildings mean more profit for you for two reasons: first, because Trachte garages and buildings sell faster and in greater numbers (send for Catalog and see why); second, a liberal proposition to dealers.

Send for Free Catalog Today

**TRACHTE BROTHERS  
COMPANY, INCORPORATED**

MADISON, WISCONSIN

### DURABLE ALL THE WAY THROUGH



A few uses for  
**INLAND COPPER ALLOY  
STEEL SHEETS**

REGISTERED  
TRADE MARK

At the  
Service  
of Steel  
Users

**INLAND STEEL COMPANY**

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Works: Indiana Harbor, Indiana; Milwaukee, Wisconsin;  
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KANSAS CITY • NEW ORLEANS • EL PASO



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**Acetylene (Gas) Dissolved.**  
Prest-O-Lite Co., Inc.,  
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**Bale Ties.**  
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**Blowers.**  
Sturtevant Co., B. F., Boston, Mass.

**Bolts—Store.**  
The Kirk-Latty Co.,  
Cleveland, Ohio  
Lamson & Sessions Co.,  
Cleveland, Ohio

**Brakes—Bending.**  
Dreis & Krump Mfg. Co.,  
Chicago, Ill.

**Brakes—Cornice.**  
Dreis & Krump Mfg. Co.,  
Chicago, Ill.

**Brass and Copper.**  
Copper & Brass Research As-  
sociation, New York  
Merchant & Evans Co.,  
Philadelphia, Pa.

**Cans—Garbage.**  
Osborn Co., The J. M. & L. A.,  
Cleveland, Ohio

**Castings—Malleable.**  
Fanner Mfg. Co., Cleveland, Ohio

**Ceilings—Metal.**  
Friedley-Voshardt Co.,  
Chicago, Ill.  
Milwaukee Corrugating Co.,  
Milwaukee, Wis.  
Wheeling Corrugating Co.,  
Wheeling, W. Va.

**Chaplets.**  
Fanner Mfg. Co., Cleveland, Ohio

**Chains—Sash.**  
Parker-Kalon Corp.,  
New York, N. Y.

**Chimney Tops.**  
Standard Ventilator Co.,  
Lewisburg, Pa.

**Check Drafts.**  
Teela Sheet Metal Co.,  
Oshkosh, Wis.

**Cleaners—Furnace.**  
Sturtevant Co., B. F., Boston, Mass.

**Cleaners—Section.**  
Sturtevant Co., B. F., Boston, Mass.

**Clinker Tongs.**  
L. J. Mueller Furnace Co.,  
Milwaukee, Wis.

**Coal Chutes.**  
Majestic Co., The,  
Huntington, Ind.

**Copper.**  
Copper & Brass Research As-  
sociation, New York

**Cornices.**  
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**Berger Co., L. D.,**  
Philadelphia, Pa.

**Lupton's Sons Co., David,**  
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Milwaukee, Wis.

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**Dieckmann Co., Ferdinand,**  
Cincinnati, Ohio

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Milwaukee Corrugating Co.,  
Milwaukee, Wis.

**Enamel Wire.**  
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**Wood Faces—Cold Air.**  
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Indianapolis, Ind.

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Milwaukee, Wis.

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Sail Mountain Co., Chicago, Ill.

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Cleveland, Ohio

**Sturtevant Co., B. F., Boston, Mass.**  
Warm Air Furnace Fan Co., The,  
Cleveland, Ohio

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Cleveland, Ohio

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Detroit, Mich.

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Friedley-Voshardt Co.,  
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**Milwaukee Corrugating Co.,**  
Milwaukee, Wis.

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Chicago, Ill.

**Lupton's Sons Co., David,**  
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**Milwaukee Corrugating Co.,**  
Milwaukee, Wis.

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La Salle, Ill.

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**Milwaukee Corrugating Co.,**  
Milwaukee, Wis.

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**Pecora Paint Co.,**  
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Quincy Pattern Co., Quincy, Ill.

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**Meyer & Bro. Co., F., Peoria, Ill.**  
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Milwaukee, Wis.

**Mueller Furnace Co., L. J.,**  
Milwaukee, Wis.

**Osborn Co., The J. M. & L. A.,**  
Cleveland, Ohio

**Robinson Furnace Co.,**  
Chicago, Ill.

**Standard Furnace & Supply Co.,**  
Omaha, Neb.

**Pipe and Fittings—Store.**  
Meyer & Bro. Co., F., Peoria, Ill.

**Milwaukee Corrugating Co.,**  
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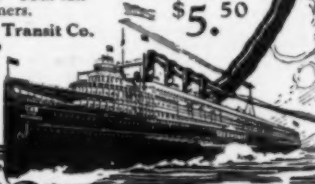
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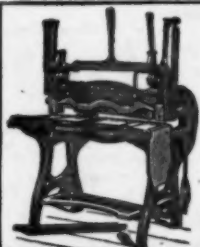
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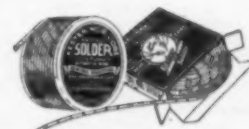


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Rockford, Ill.

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Rockford, Ill.  
Whitney Mfg. Co., W. A.,  
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Columbus, Ohio  
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Huntington, Ind.  
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Milwaukee, Wis.  
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Milwaukee, Wis.  
Robinson Furnace Co.,  
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Milwaukee, Wis.  
United States Register Co.,  
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Lamson & Sessions Co.,  
Cleveland, Ohio

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Lamson & Sessions Co.,  
Cleveland, Ohio

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Bertsch & Co.,  
Cambridge City, Ind.

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Troy, N. Y.

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Milwaukee Corrugating Co.,  
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Wheeling Corrugating Co.,  
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Rockford, Ill.  
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Rockford, Ill.

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Double Blast Mfg. Co.,  
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Sheet Steel Trade Extension  
Committee, Pittsburgh, Pa.

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Kernchen Co., Chicago, Ill.  
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Hart & Cooley Co.,  
New Britain, Conn.  
Henry Furnace & Fdy. Co.,  
Cleveland, Ohio  
Independent Register & Mfg. Co.,  
Cleveland, Ohio  
Tuttle & Bailey Mfg. Co.,  
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New Jersey Zinc Co., The,  
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**For Sale**—Part of a stock of plumbing, heating and sheet metal goods, tools and equipment, priced right. For anyone looking for a location this is a good opportunity, or it will pay to move to some other location. This is located in a town of 3,000 population in eastern Iowa and the only shop in town. It is a money maker. Owner is going into the manufacturing business and wants to reserve some of the stock used in these articles and a good share of the tools and machines. Address **B-18, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**For Sale**—First-class sheet metal business. Established 35 years. Owner retiring. Will rent or sell property. Situated in center of city; building constructed especially for the business. Rockford is growing fast, has 100,000 population, including suburbs. Noted for its manufacturing industries. Address **312 Market St., Rockford, Illinois.** 18-3t

**For Sale**—A good furnace business and sheet metal shop in a good live Ohio town of 10,000 population. Stock will invoice about \$1,000. Good reason for selling. Must be cash. Address **B-24, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**For Sale**—Sheet metal and roofing business in good Arkansas town of 8,000 population. Only shop in county. Building 15x40 ft. Priced for quick sale. Address **B-27, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**Wanted**—To buy plumbing and heating shop in northern Illinois. Preferably the lake region or a good location to start new shop. Brokers, do not answer. Address **B-15, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

Want some concern to manufacture and market my patented sheet metal flue thimble and stop. Address **R. C. Snyder, 421 West 4th St., Los Angeles, Calif.** 18-1t

**Wanted**—Hear from owner good hardware store for sale. State cash price, particulars. **D. F. Bush, Minneapolis, Minnesota.** 19-1t

## HELP WANTED

**Wanted**—Furnace salesman, one that can lay out his own jobs according to the standard code, in a city of about 16,000 population and surrounding territory. Straight commission. Must be live wire and furnish references, also whether married or single. Box 983, **Aberdeen, South Dakota.** 18-3t

**Wanted** — At once, tinner and sheet metal worker for country tin shop; middle aged man preferred; one used to country tinshop work. Write stating age and wages wanted and when you can come. Also state if married or single. Address **Murphy's Plumbing and Tin Shop, Box 497, Flat River, Missouri.** 18-3t

**Wanted**—Two good sheet metal workers familiar with slate and tile work; also want young sheet metal worker as outside foreman and salesman. Give experience and full particulars. Address **B-22, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**Wanted**—All around man who can do tinning, plumbing, etc., to work in Illinois. Steady work the year around. Give full particulars and wages expected in first letter. Address **B-8, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 17-3t

**Wanted**—At once, good all around tinner and sheet metal worker. Must be good on job work and fast. Will guarantee steady work until January first. \$40.00 per week. 8-hour day. Address **J. H. Barnett, Sheet Metal Works, Dodge City, Kansas.** 18-3t

**Wanted**—Assistant sales manager, one experienced in sheet metal work and sheet metal products. State experience. Address **B-17, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**Wanted**—Salesman experienced in sheet metal products and tinner's supplies. Either salary or commission. State experience. Address **B-16, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**Wanted**—Experienced sheet metal worker and furnace installer. One who understands his business and can produce results. Steady job. State wages expected. **Bodlak's Tin Shop, Devils Lake, North Dakota.** 19-3t

**Wanted** — Good opening for furnace salesman in fast growing city of 32,000. Apply **Advance Builders, 3rd floor, 28 North Genesee St., Waukegan, Illinois.** 18-3t

## SITUATION WANTED

**Situation Wanted**—A position in the sheet metal line (sheet metal shop or manufacturing) by middle aged man with years of experience on template, galvanized iron, copper and brass. Furnace and some hot water heating and plumbing experience also. Would consider taking some interest with reliable party. Address **B-13, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**Situation Wanted** — I want to make connections with a manufacturer or jobber of steel furnaces as heating engineer or salesman. Have had many years' experience selling and know my services will meet your requirements. Address **B-26, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**Situation Wanted**—by first-class sheet metal worker, warm air furnace installer, and all-around tinner. Also plumbing and hot water heating. Address **B-21, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**Situation Wanted**—As tinner and sheet metal worker, also furnace man. Will take shop on percentage or buy interest in shop or work awhile and buy later on. Address **275 E. Barren Street, Galesburg, Illinois.** 19-3t

## SITUATION WANTED

**Situation Wanted**—As tinner and furnace man. Can also do plumbing. Can take full charge of the shop. Am not afraid of hard work. The position must be steady the year around. Will take a good shop on percentage basis. Prefer only South Dakota, North Dakota, Nebraska and Iowa. State particulars in first letter and what you are willing to pay per week. Married. Can furnish the best of references as to workmanship and character. Can come at once. Address **B-175, Parkston, South Dakota.** 17-3t

**Situation Wanted**—To represent jobber for sheet metal and tin shops and furnace supplies, in Wisconsin. Know the trade in the state. Address **B-14, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**Situation Wanted**—By first-class tinner and furnace man with over thirty years' experience. Also do plumbing. Good habits. Address **Guy Hasty, % W. E. Bower, Monett, Missouri.** 18-3t

**Situation Wanted**—By a good sheet metal worker that holds a state master plumber's license and thoroughly understands installing warm air furnaces according to the standard code. Am married. Strictly temperate. Nothing but steady year around position considered. Can come at once. Address **Fred H. Clayton, 303 East Adams St., Pittsfield, Illinois.** 17-3t

**Situation Wanted**—By first-class tinner and furnace man. Can do inside and outside work. 25 years at the trade. Nothing but steady job the year around. Am married. Can do anything that comes in any tin shop. Address **W. J. Mack, 106½ East Main Street, Saint Charles, Illinois.** 18-3t

**Situation Wanted**—By capable mechanic as manager or foreman in general sheet metal shop. Or as production man in the sheet metal department of a furnace manufacturer. Address **B-10, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 17-3t

**Situation Wanted**—By competent plumber, fitter and sheet metal man, also steam, hot water and warm air heating. Can handle all classes of job work. Can go anywhere anytime. Address **J. L. Modrell, 1216 Broadway, Mattoon, Ill.** 17-3t

**Situation Wanted**—To represent a stove and furnace manufacturer in Wisconsin. Can furnish references and know the trade in this state. Address **B-19, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 18-3t

**Situation Wanted**—As furnace installer. Twenty years at the business. Can also do sheet metal work. Address **B-25, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

**Furnace Salesman Covering Nebraska** wants live side line on commission. Address **B-23, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.** 19-3t

## TINNERS' TOOLS

**For Sale**—One No. 39½ Bliss power seamer, One No. 34 Bliss Power Press. One No. 999B Champion Blower and Forge Co., Post Drill Press and in first class condition. Address **Herbert Bartholomew, 309 Carroll Street, Elmira, New York.** 17-3t

**For Sale**—A full set of tinner's tools excepting brake, all in A-1 condition, including work bench. Invoice \$681.46. Price for cash, \$150; also some Caloric furnace parts; Alamo light plant. **R. W. Tyler, 44 White Court, Canton, Illinois.** 19-3t

**Wanted**—One only 8' used cornice brake, 16 gauge capacity. State condition and lowest price in first letter. Address **P. O. Box 1044, Bartlesville, Okla.** 17-3t

When writing mention **AMERICAN ARTISAN**—Thank you!



## BOOKS

**Kinks and Labor Savings Methods for Sheet Metal Workers, Vols. 1 and 2—Volume I.** There are hundreds of ideas and expedients, all contributed by sheet metal workers throughout the country. Illustrated by cuts and original drawings. Cloth bound. Size 4 1/4 x 7 inches. Price \$1.00. Volume II written in same popular style as Volume I. Places at your disposal a comprehensive collection of ingenious ways of executing many practical tasks in much more simple way than if done in the regulation manner. Also contains special articles on Automobile Repairing; gives a very practical series of illustrated directions on erecting metal ceilings with ten guide rules which will save time, trouble and expensive mistakes. Price \$1.00. Order from Book Dept., AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

**Exhaust and Blow Piping, by Hayes—Exhaust and Blow Piping** has had an unusually big demand. A fresh supply is now off the press and is in our hands for immediate delivery. It has an invaluable treatise on the planning, cost, estimation and installation of fan piping in all its branches giving all necessary guidance in fan work blower and separator construction. 159 pages, 5x8. 51 figures. Cloth. \$2.00. Order from Book Dept., AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois.

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Patent Attorney  
Barrister Bldg., WASHINGTON, D. C.

## SITUATION WANTED

As salesmanager of manufacturer's furnace dept., or traveling, by a man thoroughly competent by reason of 25 years' broad experience, character, integrity and ability. Extensive coal and gas stove experience. High class reference as proof of unusual record. Age 45, permanent residence Indiana. Available soon. Address W-12, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t

## SHEET METAL FURNACE MECHANIC

wants position with someone willing to go fifty-fifty on constructing—installing—marketing new Low Cost Automatic Fuel Oil Burners. Common shop facilities sufficient to build up a big business. Not interfering with other work. Address "Heating Expert," 2217 So. Millard Avenue, Chicago, Illinois. 14-1t

## SPECIAL NOTICES

## WANTED

Salesman calling on industrial plants, etc., in Illinois, to sell ventilating systems for an established manufacturer. Excellent opportunity for right man. Address W-11, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 12-3t.

## WANTED

## EXPERIENCED FURNACE DEALER

to buy part interest in retail furnace business in eastern city of 200,000 inhabitants. Must be capable of managing 500 installations per year but there is ample capital available in the company to finance the business. Partner manager, of successful experience required. Address the Lennox Furnace Co., Syracuse, New York, for information as to this dealer opportunity. 18-2t

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## STATE

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We want men in all the Northern, Southern and Western States to represent us either exclusively or in conjunction with some hardware or sheet metal line.

Experience in furnace fittings not necessary, but acquaintance with trade would be very helpful. Give full details in first letter.

Write at once to W-8, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 10-3t.

## HARDWARE AND HOUSE FURNISHING LINES WANTED

by Manufacturers' Representative who is thoroughly acquainted with the trade. Headquarters, Chicago. Address, Manufacturers' Agent, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 14-3t.

## WANTED

Furnace salesmen in Illinois, Indiana and Iowa territories, who would like profitable side line connection with a nationally advertised product. Please communicate with W-17, care AMERICAN ARTISAN, 620 South Michigan Avenue, Chicago, Illinois. 17-3t.



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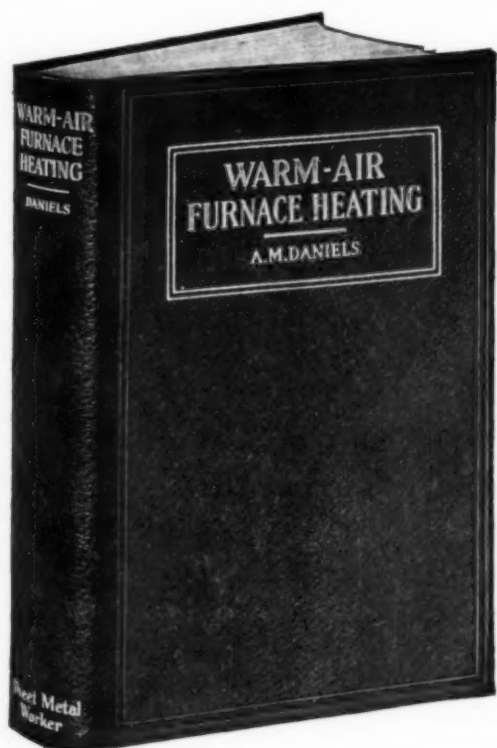
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12. Chimneys and Flues.
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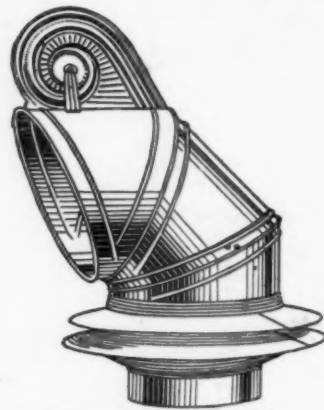
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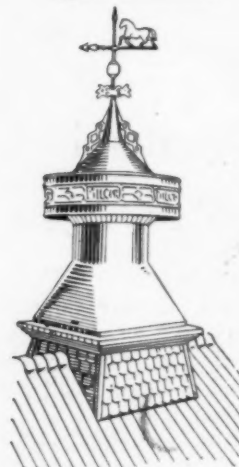
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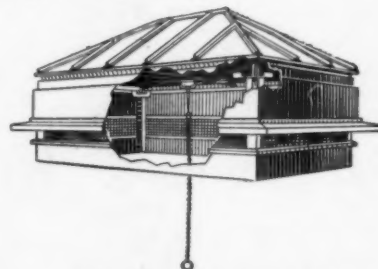
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